Hα 1800, 600, 831 ln/mm gratings Apr 23-25/92
Windowing, Focus and Efficiency compared.

Encoder Tests June 7/8/92
No flexure Tests in this volume.

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				DAVID DUNLOP OBSERVATORY							
				74" Logbook							
				Vol. 70							
				Plate No. 6220 - 8773							
				April 1992 - July 1992							

5 pg2 Thurs/Fri
Continued From previous Book!

Date 1992APR.9/10..... Observers .[KK]..Th/Fbs.....

Emulsion Batches:
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.....
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
6220	BIAS(4)			00 58						
6221	Comp							FeNe Clear	40s	
6222	HD147379	16 16 36	67 28	01 06	01 52	01 27 E				2255
6223	Comp							FeNe Clear	40s.	
6224	Comp							FeNe Clear	40s.	
6225	HD158633	17 25 18	67 24	02 09 30	02 19 30	02 08 E				3000
6226	Comp							FeNe Clear	40s.	
6227	Comp							FeNe Clear	40s	
6228	BD +68° 946	17 37 00	68 27 00	02 37	03 22	01 16 E				1270
6229	Comp							FeNe Clear	40s	
6230	Comp							〃	〃	
FM00429.fits	A,B,C,D HD144579	16 01 30	39 24		~03 34	00 27 W	+39°	67m sec	Int	45 frames
cc06231	HD144579	16 01 30	39 24	03 36	03 42	00 35 W				2600
6232	Comp							FeNe Clear	40s	
6233	Comp							〃	〃	

Spectr. Temp. ..... Dome Temp./Hum. +5.2°C ..... 60% H* Transparency Conditions Fine ..... sl. hazy 6

*A rapid drop from earlier!

Focus .. 6.75 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... C Lambda 90C GAIN CCDT ≈ −100°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G=4983 1800 l/mm	200u Full Length	5140Å				
2255		V 8.63	MOI			10ci			KK PAM	DOME T = 4.7°C 700 ADU MAX	
3000		B 7.09	dk1 G9 I			10ci			KK PAM	DOME T = 4.4. 1500 ADU MAX.	
1270	4"	V 9.22	m5			11ci			KK PAM	DOME T = 4.1°C MAX 500 ADU Fld decks out fine	
4 frames		V 6.66	dG8	DOMO SW		[illegible]	Light SW breeze		[illegible]	DOME T = 4.1°C HUM = 65% SEEING TEST.	
2600	2"-4"	V 6.66	dG8			12ci		12ci	STO. VEL.		

7 pg#3

Date .1992...April..9/10.. Observers .EKKJ.Tn/Fbr.....

Emulsion Batches:
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.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
6234	HO 8890B	01 22 36	88 46 00	03 55	04 07	09 18E				925
6235	Comp							FeNe Clear	40s	
6236	Comp							-11-	11	
6237	Nova Cyg 92	20 27 43	52 17 39	04 25	0434	0258E				1100
6238	Comp.							FeNe Clear	40s	
6239	FLAT							TUNG Clear	20s	
6240	FLAT							"	"	
6241	FLAT							"	"	
6242	Comp							FeNe Clear	50s	
6243	Nova Cyg92	20 2743	52 1739	04 47	04 51	0241E				630
6244	"			0452	0457					650
6245	Comp							FeNe Clear	50s	
6246	BIAS(4)									
6248	HD177724	19 00 49	+13 43	05 07	05 09		CCD6247	FeNe	30	19000
6250							CCD6249	Clear	50	
6251	FLATS x3							TUNG Clear	4	

Spectr. T
Focus ...
Spectr. T

Spectr. Temp. ..... Dome Temp./Hum. ..6.7%..20345 Transparency Conditions ..... CLEAR .....

Focus ...6.75.....

Spectr. Temp. ..... Dome Temp./Hum. +3.5°C 66%H

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
925		~~28~~ ~~28~~ ✓	F	CASS CCD	G=4983 1800 l/mm	200μ Full Length	5140Å	13ci	KK Pam	POLARIS A VISIBLE ON LOWER RIGHT ~~upper spectral image~~ PERHAPS is POLARIS A spectrum	
1100								14ci		DOME T= 3.7°C HUM=66%	
								15ci		13K MAX ADU/pixel	
										"	
										"	
					G=6000 1800 lm/mm		6550Å	~~16~~			
630								16ci		MAX 7K ADU	
650								16ci			
										Dome T= +3.3°C	
19000								17ci	Telluric Std	2K max	
	All now to Persons & WORM							19ci			

9 pg #1 sunspot

Date 1992 Apr 12/13 ..... Observers .. Hdg. L.T.n. .....

Emulsion Batches: .....

.....

Note - Header Times ≈ 1 min ahead for ≈ 30 min - Then exact

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
cc06253	BIAS(4)									
6254	Comp							Fe Ar clear	120s	
6255	BW Dra	15 0950	+62 1404	21 46 20	21 53 20					205
6256	FLAT							TUNG A=1/4	33s	
6257	HD 135421	15 0951	+62 1346	22 01 20	22 08 20					610
6258	"			22 09 50	22 18 08					680
6259	"			22 19 04	22 27 19					650
6260	"			22 28 03	22 36 03					610
6261	"			22 36 51					480s	
6262	"			22 46 00					480s	610
6263	Comp					Fe Ar clear	double fired	2	120s	
6264	FLAT									
6265	BIAS(4)									
6266	BW DRa			23 01 47				480sec		315
6267	HD 135421			23 10 56				1		480

Spectr. Temp. ..... Dome Temp./Hum. -2°C : 54% Transparency Conditions ... Part. Cloudy 10

Focus .... 6.83 .... @ .... -2° give Focus Test Right on.

Spectr. Temp. ..... Dome Temp./Hum. ..... CLAMBDA 90 C GAIN T -> -100 C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G=5505 1800 l/mm	200u Full Length	5880Å				
205								4ci	Hdg pgm		
										MAX 10K ADU	
660	6"							6ci			
680								7ci			
650								8ci			
610								9ci			
610											
								3ci			
								5ci		10K max	
315								4ci	Hdg pgm		
480	4"-6"							9ci			

11 Pg #2

Emulsion Batches:

Date 1992 Apr 12/13 Observers Hdy. T.n.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC 06268	HD 135421	15 09 51	+62 13 46	23 19 23		using Repeat	Star 8m But	4	8min
6269	"			23 27 35					
70	"			23 35 47					
71	"			23 43 59					
72	"			23 52 38		02 00E			4m45s
73	Comp							Tear clear	123
74	FLAT								
75	BIAS(4)								
76	BW Dra	15 09 50	+62 14 04	00 10 18					5m
77	HD 135421			00 19 13	(repeat 8m x 6)				"
78	"			00 27 25					"
79	"			00 35 37					"
80	"			00 43 49					"
81	"			00 57 02					"
82	"			01 00 14		00 55E			"

Spectr. Temp. ..... Dome Temp./Hum. -3.1°C 56% Transparency Conditions ..S.L. hazy.....

Focus ... 6:8.3.....

Spectr. Temp. ..... Dome Temp./Hum. .....

C LAMBDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
537	4"	V 7.88 - 8.48	FTV	CASS CCD	G=5505 1800 l/mm	200μ Full L	5 88 01	9ci	Hdy pgm	South & Brighter one	
512											
490											
470											
470											
								3ci			
								5ci			
								1ci		Dome T = -3.5°C	
268		V 8.61 - 9.08						4ci		(Bri CCD3 Command prompt?)	
520		7.88 - 8.48	FTV					9ci			
sum of 2											
1130											
580											
000											
650	3"										

13 Pg #3

Date 1992 Apr. 12/13 Observers Hdy./T.L.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC06283	Comp								
6284	FLAT								
6285	BIAS(4)								
6286	BW Dra	15 0950	+62 1404	01 15	01 2430				
6287	HD135421	15 0951	+62 1346	01 2534					8 min
88	"			01 3346					
89	"			01 41 58					
90	"			01 50 10					
91	"			01 58 22					
92	"			02 06 35					
93	Comp							Fe Ar check	120
94	FLAT							Tung H=1/4	33
95	BIAS(4)								
96	Comp								
97	~~HD 135421~~ FLAT								

Spectr. T
Focus...
Spectr. T

Exp. Mtr.

733
to 74
772
795
740
732
730

Spectr. Temp. ..... Dome Temp./Hum. -3.8° 54% Transparency Conditions ... Fine .....

Focus ... 6:83 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

CLAMBDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G=5505 1800	200u FULL length	5884	3ci			
								5ci			
~~35~~ 370								10ci	Hydyn	fainter & NoR tone	
Sam 747								11ci			
772											
735											
760											
732											
730											

15 pg #4

Emulsion Batches: .....

Date 1992 Apr 12/13 Observers Hdy / Tn .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC06298	HD 177724	19 00 49	+13 43	02 45	02 47 20	0308E			
6299	~~Comp~~ HD 177724	"	"	02 48	02 52 40				
6300	Comp of BW Dra posh							Fehr Clear	120s
6301	FLAT							TUNG A=1/4	3 sec
6302	BW Dra	15 09 50	+62 14 04	03 06 18	03 14 18	W			8 min
6303	HD 135421	15 09 51	+62 13 46	03 14 24	(using Repeat 8 min exp x6)				8 min
6304	"			03 23 06					"
6305	"			03 31 18					"
6306	"			03 39 31					"
6307	"			03 47 43					"
6308	"			03 55 55		2 02W			"
6309	BIAS(4)								
6310	FLAT							TUNG A=1/4	33
6311	Comp							Fehr Clear	120s
6312	BW Dra			04 10 30	04 18 30				450 sec

Spectr. Temp. ..... Dome Temp./Hum. -4.2°C 64% Transparency Conditions Sl. hazy

Focus 6.83

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
15 000		2.99	AO	CASS CCD	G=5505 1800 l/mm	200μ	5880Å	12c;	Telluric Std	guided MAX ≈ 3000 ADU	
30100								12c;	"	6K MAX	
								3c;			
								5c;		10K MAX	
240	3"							13c;	Hg Argon		
660								14c;	"		
657											
600											
560											
498											
467											
										Dome T = -4.7C	
								5c;		10K MAX	
								3c;			
260								13c;			

17 pgs

Emulsion Batches:

Date 1992 Apr 12/13 Observers H.L. / J.T.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD6313	HD135421	15 09 51	+62 13 46	04 19 10	using Keapert 8min x5				480s
6314	"			04 27 22					"
6315	"			04 35 34					"
6316	"			04 43 46					"
6317	"			04 51 58					"
6318	"			05 00 33					480s
6319	BIAS (4)								
6320	Comp							Fe Ar Clear	120s
6321	FLAT							Tung A=1/4	
6322	Focus Test	Comp posn				0 0	+45°	Fe Ar Clear	40
6323	" "	Stellar posn				0 0		"	30

Spectr. T
Focus...
Spectr. T
Fwo Mtr
513
549
593
635
680
1430
T=

Spectr. Temp. ..... Dome Temp./Hum. -4.5°C 67% Transparency Conditions ... Fine ... s/hazy ... 18

Focus .... 6.83 .....

Spectr. Temp. ..... Dome Temp./Hum. -5.0°C ... 70%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
513	4"			CASS CCD	1800 l/mm	200u Full Length		14ci	Hdy pgm		
549							5880Å				
593											
635											
800											
1400								15ci		pushing down	
								3ci			
								5ci			
T = -4.9°C	Set	6.83			G-5505 1800 l/mm	200u	5880Å	16ci	Focus test		
								17ci			
				All to Perseus & WORM					After UT's Date edits of CCD 6253-58		

19 pg #1

Mon - Tues

Date .1992 Apr. 13/14..... Observers .Hdy../.T.q.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CC06324	BIAS(4)								
6325	Comp								
6326	HD87901	10 0303	+17 27	19 5230	19 5300				
6327	"			19 5445	19 5548				
6328	FLAT ↕							Tung A=1/4	33
6329	Comp ↕							Fe Ar Clear	90
6330	BW Dra	15 09 50	+62 14 04	20 1050	20 1850	E		480	085
6331	HD135421	15 09 51	+62 13 46	20 19 32				480s	"
6332	"			20 27 44					
6333	"			20 35 56					
6334	"			20 44 08					
6335	"			20 52 20					
6336	"			21 00 32					
6337	Comp							Fe Ar Clear	120s
6338	FLAT							Tung A=1/4	33

Spectr. Temp. ..... Dome Temp./Hum. +1°C 40% Transparency Conditions ..... clearing 20

Focus ..... 6.83 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G 6020 1800 l/mm	300μ Full	Hd				
30K								4ci	Telluric Std	6000 MAX thin cloud	
58530								4ci	"	10K MAX " "	
								5ci		12.4K MAX AOY	
								3ci			
354	2"-3"							6ci	Hdy pgm	1-57 Dia MASS	
sum of	"							7ci	"	using (Repeat 3mm 6 i.e 480 Obs batch	
1189											
436											
570											
440											
164										cirrus clouds	

21 pg #2

Date 1992 Apr 13/14 Observers Hdg - T.H. / S.C. visiting

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC06339	FLAT							Tung A-1/4	33s
6340	BIAS(4)								
6341 6342	Focus Test	Comp / stellar		posn	2215	0 0	+30°	FeAr clear	40 60
6343	DARK			23 0413				8 min	
6344	"			23 17				8 min	
6345	BIAS(4)			23 26					

22

Spectr. Temp. ..... Dome Temp./Hum. -002° 48% Transparency Conditions ... Cloudy ... North half ...

Focus ... 6.83 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... 90 C GAin Tonight CCDT = -100°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD		200u Full length	G=6020 6563A				
										Dome T = -002°C	
T= 00.0°C Set 683						200u Full	6563	16ci 17ci	Focus test	Red end Right on Blue end = 6 pixel blue	
								18ci		Top up finished 5 min before	
								19ci			
									Dome T = 0.°C		

23

pg#: Tues/Wed

Date 1992 Apr 14/15 Observers Hdg ... T.n .....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc 06346 6347	Focus Test	Comp/Stellar Hartman posns				00 04W	+29°	FeAr Clear	40/5
6348	BIAS (4)								
6349	Comp							FeAr Clear	120s
6350	~~HD~~ FLAT							TUNG A=1/4	33s
6351	HD135421	15 0951	+62 1346	19 43 14	19 51 34	06 04 E			500s
6352	"	"	"	19 51 47					"
6353	"	"	"	20 01 18					"
6354	" > Repeat 4			20 09 52					
6355	"			20 18 25					
6356	"			20 27 00	20 35 20				
6357	BIAS (4)								
6358	FLAT							TUNG A-1/4	33s
6359	Comp							FeAr Clear	11 2s
6360	HD135421 (Comp)	150951	+62 1346	20 41 47	(using Repeat ~~500~~ OBS	7)			
6361	"	"	"	20 50 21					

Spectr. Temp. ..... Dome Temp./Hum. +3°C 55% Transparency Conditions ..thin cloud.....

Focus ..6.83.....

Spectr. Temp. ..... Dome Temp./Hum. ..... LAMBDA 90 CCGAIN Topup at 19 EST

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Set 6.83	T	= +3.0°C		CASS CCD	G=5505	200u Full Length	5880A	16ci 17ci		stellar <0.2 pixel Red	
								1ci			
								3ci			
		V						5ci		10K max ADU	
770		7.88 -8.48						~~4ci~~	Hdy pgm	using Repeat SStar 8m.BAT	
800	3"	7.88 -8.48	F7V					4ci	info for Shen →	only 133 secs between end and start 2958 done end time too	
720								6ci			
727											
760											
850											
										Dome T = +00.5°C	
								5ci		18K max ADU	
2110 (secs due to restart)								3ci	HB1357-2	is sl brighter of	
660	3"-5"							7ci	pair and	sea therm one	
830								7ci			

25

Pg #2

Date 1992 Apr. 19/20..... Observers . Hdy. / Tn.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD6362	HD135421	15 09 57	+62 13 46	20 58 55	21 07 15	04 48 E			
6363	"			21 07 28					
6364	"			21 16 02					
6365	"			21 24 36					
6366	"			21 33 09	21 41 29				
6367	BIAS(4)								
6368	Comp							FeAr Clear	120s
6369	FLAT							TUNG H-1/4	33s
6370	Comp							FeAr Clear	120s
6371	BIAS(4)								
6372	HD87901			21 55 51	21 57				
6373	"			21 58 42	21 59 30				
6374	FLAT							TUNG H-1/4	38s
6375	Comp at	HL						FeAr Clear	90s
6376	HD87901			22 08 40	22 09 50				

Spectr. Temp. ..... Dome Temp./Hum. +00.9°C ..... 57% Transparency Conditions .. PART Cloudy .....

Focus .... 6-83 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

CCD T → -100°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
810	3'6"			CASS CCD	G 5505 1800 l/mm	300μ Full	5880Å	7ci	Hdy Pgm	1.41 AIR MASS Clear in this part of SKY	
770	2-7"										
800											
770											
740	3"							7ci			
								1ci		Dome T = -00.1°C	
								3ci			
								5ci			
								3ci			
44K								8ci	Telluric	8800 ADU	
54K								~~8ci~~	"	10K max	
								5ci		11K max	
					G 6020 1800 l/mm		6563Å	3ci			
34K					"			8ci	Telluric Std	5.8K 12AX	

27

pg #3

Emulsion Batches: .....

Date 1992 Apr. 14/15.... Observers ..Hdg. Jo.. MKi.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
6377	HD87901	10 0303	+12 27	22 11	22 13	01 22W			
6378	FLAT							TUNG A=14	33s
6379	BIAS								
6380	FLAT of HD135421 posn							TUNG A-14	33
* 6388	Comp	"	"	(*Written after	following Batch)		90sec	TEA CLOUD	~~500~~s
6381 ~~6387~~	HD135421	15 0951	+62 1346	22 36 24	22 34 44	(repeat 500 OBS 7)			500s
6382	"			22 34 57	22 43 17				
6383	"			22 43 31	22 51 51				
6384	"			22 52 05	23 00 25				
6385	"			23 00 39	23 08 59				
6386	"			23 09 13	23 17 33				
6387	"			23 17 48	23 26 08				
6389	BW Drq	15 0950	+62 1404	23 57 15	23 35 35				
6391	B145(4)	done after comp							
6390	Comp			23 46				FOG CLEAR	

Spectr. Temp. ..... Dome Temp./Hum. 0°C ..... 57.8% Transparency Conditions Slt Hazy .....

Focus ... 6.83 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
≈ 50K		1.36	B7n	CASS CCD	G 6020 1800 l/mm	300u FULL	6563Å	8ci	Telluric Std	7100 max	
										13K max	
								5ci			
This comp done before following batch but written later								3ci			
Sym of 2	3"-4"	7.88V -8.48	F	7V				9ci	Hdy pym		
1300											
930											
910											
1010											
1000											
940	4"							9ci			
490	3-4"							10ci		Fainter to North	
										Drive T = -0.02°C	
								3ci			

29 pg#4

Emulsion Batches:

Date 1992 Apr. 14/15 Observers Hdg. T.H.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.
CC06392	FLAT			* when star reached slit				TUNG A=1/4	335s	
6393	HD135421	15 09 51	+62 13 46	23 42 15	using (Repeat 500 OBS 7)				500s	970
6394	"			23 50 18	23 58 01 57E				600s	880
6395	"			23 58 52						935
6396	"			00 07 26						790
6397	"			00 16 00						900
6398	"			00 24 34						890
6399	"			00 33 08						780
6400	BW DRA			00 42 57	00 51 17	01 04E			500s	390
6401	BIAS(4)									
6402	FLAT							TUNG A-1/4	33s	
6403	Comp							FE Ar Comp	90sec	
6404	HD135421			00 57 50						770
6405	"			01 08	01 16 20					870
6406	* NNE of HD135421	* 15 09 52	* +62 14 22	01 17 49	01 40 15			1343s		

Spectr. Temp. ..... Dome Temp./Hum. -00.3°C 60% Transparency Conditions SI hazy 30

Focus ... 6.83 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				C 455 CCD	G 6030 1800 g/mm	200μ	6563Å	5ci			
930								11ci	Hdy Pgm		
880	4"									Air Mass = 1.10	
935											
790	4"-6"										
900											
890											
780								11ci			
390								12ci			
										Focus T = -00.8°C	
								5ci		Ha K MAX	
								3ci			
870	3"							13ci			
840								14ci			
25	3"-4"	V 12.6 (measured by Hdy with photometer)		318 msec Int on Guider needed				15ci	* very accurate	* ≈ 300 photons obtained / coak at 1900 rounds from encoders.	

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pg 05

Date 1992 Apr 14/15 ..... Observers Hdg. on twin plotmeters Tn

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD6407	HD135421	15 09 35	+62 13 46	01 45 00					500s
6408	"	"	"	01 54 00	020227				507s
6409	BIAS (4)								
6410	Comp							Fe Ar Clear	90s
6411	FLAT							Tune 1-V4	33s
Fm00431	FT Centered on BW DRa	(Fm00430 of BW DRII and Faint one)		0212					
6412	HD 135421			021324					500s
6413	"	repeat 4		022730					500s
6414	"			023104	023974				
6415	"			023938					
6416				024812					
6417	BW DRa (~~BIAS (4)~~)	15 09 50	+62 14 04	025726					
6418	BIAS (4)								
6419	FLAT							Tune 1-V4	33 sec
6420	Comp						Fe	Ar Clear	90s

Spectr. Temp. ..... Dome Temp./Hum. -1.0°C 65% Transparency Conditions . Sl. hazy .....

Focus 6-63 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CLIM BDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
815				CASS CCD	G 6020		6563Å	~~16c~~	Hdy pgm	Bit component	
	4"							18c;			
								3c.			
								5c;		13K max	
191x191 pixels						200µ Head	EEV CAMERA		slit head scale use	3 stars v faint one at bottom	
700	3"							19c;	Hdy pgm		
770	3"-4"							20c;			
810											
sum of last 2											
1620								20c;			
590								21c;		Dome T = -0.1.0°C	
								~~25~~;			
								~~34~~5c;		14 K max	
								3c;			

33 pg #6

Tues - Wed

Date 1992 Apr 14/15 Observers Hdy. Ty

Emulsion Batches:

Header Times. 0 Clock now 2-3 secs behind Astro and our V

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC06421	HD135421	15 09 51	+62 13 46	03 12 26	03 20 46				500 Sec
6422	"	"	"	03 30 25	03 38 45	01 44 W			
6423	"	"	"	03 39 00	03 47 20				
6424	"			03 47 31					
6425	"			03 56 07	04 04 27				
6426	BW ~~(BIAS4)~~ DRA			04 05 20					508
6427	BIAS(4)								
6428	Comp							Fotr Clear Turn A-1/4	90 sec
6429	FLAT								33 sec
6430	HD135471			04 19 32					503
6431	"			04 28 05	04 36 25				
6432	"			04 36 40	04 45	02 51 W	Comp CC00433 CC00436	FoAr Clear	90s
6435	HD ~~Comp~~ 177724	19 00 49	+13 43	04 53 00	~4 mins				90 ~~sec~~
6434	Biac(4) before stellar.								
6437	FLAT (at posn of HD177724)			~~04 58~~	05 01			Turn A 1/4	33s

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ... Fine - incr haze 34

Focus ... 6-8.3 .....

Spectr. Temp. ..... Dome Temp./Hum. ... -1.0°C ... 63%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1100	2-4"					200μ	6563Å	22ci	Hdy pgm		
sum of 2								23ci	repeat/shorter (core 4x)	9 min cost/core	
1942								23ci	~~Repeat 4~~		
1030											
1050								23ci			
400		✓ 8.61 - 9.08						24ci		Dome T = -01.0°C	
								3ci			
								5ci		14.5 K AOV max	
920	✓ 3-5"	✓ 7.58 - 8.48	F7V					25ci	Hdy pgm		
1060											
1150								25ci		AIR MASS 1.16	
35K		✓ 2.99	AOV nn					26ci	Telluric Std	1.15 Air mass 7.5K max	
								5ci			

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Tests for Holy

Date 1992 Apr 23/24 Observers Holy Tu Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Ex
CC 06438 CC 06439	Focus Test	(Comp/Stellar Hartman)		23 00		0 0	+27°	FeAr Clear	4s/14s
CCO 6440	Comp			23		0 0	"	FeAr Clear	90s
CCO 6441 CCO 6450	BIAS(1) x10	10 Bias single		23 02		0 0	"		
6451 6460	FLAT x10		FIRST → NINE → TEN	23 15 23 20 23 34	23 28,30	0 0	"	TUNG A=1/4	33s
6461 6470	FLAT x10					0 0	"	"	15s
6471 6480	BIAS(1) x10			23 45		0 0	"	"	
6481	Comp			23 51		0 0	"	FeAr Clear	90s
CCO 6482	Comp	14 Apr 24/25 Tests		CCDTemp → -100°c	CCAin=90	0 0	+30°	FeAr Clear	30s
6483 6484	Focus Test	Comp/Stellar Hartman poses				0 0	"	FeAr Clear	10/15
6485	FLAT					0 0	"	TUNG A=1/4	11sec
6486	FLAT					0 0	- UV FILTER GG 385	TUNG A=1/4	11sec
~~6485~~	Comp	with filter in		not written		0 0	"	FeAr Clear	30s
~~6486~~	Comp	no filter				0 0	no Filter	FeAr Clear	30s
6487 6488	Focus Test	Comp/Stellar Hartman poses				0 0	"	"	10/15
6489	FLAT					0 0	"	TUNG A=1/4	11s
	Comp								

Spectr. Temp. ..... Dome Temp./Hum. +10.5°C 68% Transparency Conditions Rain

Focus ... 6.74 ..... $T_{CCD} = -100.3$ Lightning (distant)

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G=6020 1800 l/mm	200u full	6583Å	1ci 2ci	Set=6.74	T=10.3°C	
								3ci		LIGHTS ON	
								4ci		LIGHTS OFF	
								5ci		12.6 K ADU MAX	
								6ci		5.2 K ADU MAX	
								7ci			
					G=6020 1800/56.1°			8ci	6583Å		
					G=3606 831/34.3°	200u Full Length		10ci	6583Å	CCD FMT 300 0 60 1024 1 1	
	T=+9.8C		Set=6.90		"	"		11ci 12ci	"	CCD FMT for focus 120 0 12 1024 1 1 Stellar 2.0 Pixel Rej 12.4K MAX ADU 14.7K — Red End 11K ADU Typical Data	
					"	"		13ci	"		
					"	"		14ci	"		
					"	"		15ci	"	No difference noted with or without filter	
	T=+8.6C		Set=6.90		G=3085 600/	"		16ci	"	520 0 60 1024 1 1	
		"	"		"	"		17ci 18ci	"	Rej. 4 pixel 380 0 12 1024 1 1	
								18ci	"	12K DN at 1.2	
					1800		6563Å	19ci			

37 pg#1 Sun-Mon

Date 1992 Apr 26/27 Observers Hdg. / T.J.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc 06490									
6491				18 40					
6492	SKY (FLat)		-10	19 14		0000	-10°	None	60sec
6493	Comp						-10	Fe Ar Clear	70sec
6494	FLAT Regulus			"			-10	TUNG A-1/4	33sec
6495	SKY (FLAT)			19 24 07	19 30 24	00 00	-25°		
6496	Comp						-25		70sec
6497	FLAT						-25	TUNG A-1/4	33s
6498	SKY (Flat)			19 37 42	19 50 03		+10°		
6499	HD87901	10 03 03	+12 27	19 54	20 14				
6500	BIAS (4) AT START			(19 07)					
6501	Comp			20 15				Fe Ar Clear	70sec
6502	FLAT			20 17+				TUNG A=1/4	33sec
6503	BIAS (4) AT END			20 19					
6504	DARK			20 28 10	20 40 10	00 00	-18 25		12 min
6505	DARK			21 54					225s
6506	DARK			22 00					225s
6507	BIAS (4)			22 06					

Spectr. Temp. 9.5°C Dome Dome Temp./Hum. 9.5°C 54% Transparency Conditions .. PART. Cloudy

Focus 6.80

$T_{CCD} = -100.5°C$ FANS ON

Spectr. Temp. ..... Dome Temp./Hum. .....

90 CGain

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G=6020 1800/n/mm	200u Full Length	6563Å	'	.3 Pixel Rad @ 14	360 0 10 1024 40 1 CCD FMT	V=1 Red
51K						"		3ci	SKY Flat Hdg test	480 0 50 10.74 4 1 PART Cloudy 2200 MAX	
						"		~~4ci~~			
						"		5ci		13K MAX	
45500						"		6ci			
								4ci			
								7ci			
4980								8ci		WEAK	
2021		1.36	B7n					9ci	Telluric Std	too cloudy	
								1ci		DONE AT BEGINNING	
								10ci			
								11ci			
								1ci		T=+0.8°C	
								12ci		ON PLATFORM	
								15ci 16ci		225 sec. dark is max. duration without saturating hot pixel	
								1ci			

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Sun - Mon

Date 1992 Apr 26/27 Observers Hdy / Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
CC06508	Comp							FeAr Clear	70s	
6509	Flat							TUNG A=1/4	33s	
6510	HD135421	15 09 51	+62 13 46	22 42	23 50 20	02 18 E		5500 K's		470
6511		using SSTAR8m.BAT x3		22 51 40	23 00 00					470
6512				23 00 15						415
6513				23 08 50						345
6514		Expose - Readout		23 19 45					504s	420
6515		SSTAR8m, BAT 3		23 29 43	23 38 03					370
6516				23 38 59	23 47 20					335
6517				23 47 33						300
6518	BIAS(4)									
6519	FLAT							TUNG A=1/4	30s	
6520	Comp							FeAr Clear	70s	
6521	HD135421			00 01 31				Expose/Readout	580	510
6522	DARK 5x2	using 2DARK.BAT						225	SEC	
6523	DARK							"	"	

Spectr. Temp. ..... Dome Temp./Hum. +7.2°C 53.8% Transparency Conditions ... Clearing from NNE

Focus .. G: 80 .....

Spectr. Temp. ..... Dome Temp./Hum. +6.4°C 54.8%

CCDT = −101°C 90 CGAin

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G 6020 1800 l/mm	200μ Full	6563Å	10ci			
								11ci		13 K ADU max	
970	5"	✓ 7.88 → 8.48	F7V					17ci	Hdy-pgm		
990								~~18ci~~			
415										some cloud	
345								18ci		lights flickered at 2345 more cloud	
620								19ci		Clear again	
670											
678											
400								20ci		Cloud again	
										Dome T = +6.5°C	
								11ci			
								10ci			
450								21ci		Cloud at end	
								12ci	MAX Count/ pixel	Eye before test saturates 6 streaks,	
			Back up to end of Pole								

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Emulsion Batches: .....

Date .1992 Apr 26/27..... Observers .Hdy - T.S..... .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr
CC06524	HD135421	15 09 51	+61 13 46	00 43 30					691/5	
6525	"			00 55 56					503	300
6526	BIAS(4)									
6527	Comp							FeAr Clear	70s	
6528	FLAT							TUNG A-1/4	33s	
6529	HD135421			01 12	01 20				480s	480
6530	HD 135421			01 22	01 30				500s	1050
6531	HD 135421			01 31 01					490s	
6532	HD 135421			01 40 36	01 48 15				435	320
6533	"			01 50 08	01 58 28				500s	370
6534	"			01 58 34	02 06 54				500s	730
6535				02 07 50					500s	910
6536	BIAS(4)									
6537	FLAT							TUNG A-1/4	33s	
6538	Comp							FeAr Clear	70s	

Spectr. Temp. ..... Dome Temp./Hum. +6.3°C ..... 55.5% Transparency Conditions . Mostly cloudy - clearing from the EAST!

Focus ... 6.80 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
600	4"			CASS CCD	G=6020 1800 l/mm	200μ Full Length	6563Å	22c;	Hdg pgm	in. out of cloud	
300								23c;		cloud ahead	
								10c;			
410								24c;			
850								25c;			
								26c;			
320	6"							27c;			
380								28c;			
730								29c;		clear again	
880								30c;			
										Dome T = +5.1°C	
								11c;			
								12			

43 pgon

Emulsion Batches:

Date 1992 Apr 26/27 Observers HMS JTH

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cr06538	HD135421	15 09 51	+62 13 46	02 22				500 secs	
6540				02 30 33					
6541				02 39 09					
6542				02 49 53					
6543				02 58 28					
6544				03 07 04	03 15 24				
6545	BIAS(4)								
6546	Comp							Fe Ar Clear	70s
6547	FLAT							Tung A=1/4	
6548	HD135421			03 21 50				T455	50c
6549 6550	DARKS ×2			03 34				each 225	sec
6551	Comp							Fe Ar Clear	70
6552	HD177124	19 08 49	+13 43	03 55 50	04 01 43				
6553	BIAS(4)								
6554	FLAT							Tung Af=1/4	33
6555									

Spectr. Temp. ..... Dome Temp./Hum. +5.6°C 57.8% Transparency Conditions ... South clear

Focus ... 6.80 clouding in rear dome,

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
800	6"				G=6020	20μm	6563Å		Hdy pgm		
800											
780								26c;		Using (Report SSTARS on BAT 3)	
720										↓ " " "	
800											
733								24c;			
										Dome T = +5.2°C	
1600								30c;		Cloud again	
								~~31c;~~	Batch 2D HARK. BAT		
		2.99 ✓	AC ✓ nm					10c;			
18770		"	"					31c;	Tabloric Std	some cloud A o ~~mass~~ 1.09	
								11c;			

45 Pl=5

Date 1993 Apr. 26/27 Observers ...Hdy...T.n.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
6554	HD 177724			04 07 00	04 16 50				
6556	Comp at Nova Cyg 92								
6557	Nova Cyg 92	20 27 43	+52 17 39	04 23 40	04 29 30				
6558	"			04 29 40	04 33 45	01 57 E			
6559	Comp							Fe Ar Clear	70
6560	FLAT							TUNG 1+1/4	33s

Spectr. T
Focus...
Spectr. T
Exp Mtr.

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .....

Focus ....6.80.....

Spectr. Temp. ..... Dome Temp./Hum. +5.0°C...57%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
2762				CASS CCD		200μ Full	Hα	3|Ci	Hely pgm	CLOUD AT END	
860	4"							32Ci	Nova pgm		
550								33Ci	"		
								10Ci			
								11Ci			

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Mon - Tues

Date 1992 Apr. 27/28 Observers Hdy Jn F.br

Emulsion Batches: .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
cc06561	BIAS(4)									
6562	SKY			19 2540	1940	0 0	+30°		883s	2330
6563	FLAT							Tung A-1/4	33s	
6564	Comp							FeAr Clear	120s	
6565	Comp for Regulus							"	"	
6566	HD87901	10 03 03	+12 27	09 5707					94s	4Y
6567	Comp							FeAr Clear	120s	
6568	FLAT							Tung A = 1/4	36s	
6569	FLAT at HD135421 posn							"	38s	
6570	Comp							FeAr Clear	120s	
6571	HD135421	15 09 51	+62 13 46	20 2030	20 3850				500s	4Y
6572	BIAS(4)									
6573	HD135421			20 3132					500s	4Y
6574	"			20 4006					"	4Y
6575	"			20 4840					"	4Y

Spectr. Temp. ..... Dome Temp./Hum. +7.7°C 46% Transparency Conditions ..Part...cloudy.....

Focus ....6.80.....

Spectr. Temp. ..... Dome Temp./Hum. ..... 90CGAIN CCDT = -101.0°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G-5505 1800/mm	200u Full length	5980Å	1ci		ccd FMT 480 0 50 1024 4 1	
42,300								3ci	Hdg test	Sky Flat	
								4ci			
								~~5ci~~			
								5ci	Tellurite Std		
240K		V 1.36	B7n					6ci		12.5 ADU max	
										11K ADU max	
			V 7.88 7.88 7.88								
480			V 7.88 → 8.19	F7 V				7ci		424 ADU max	
										Dome T = +6.2°C	
450	4"							8ci		using Kpno std STARS on BAT 6	
420											
390											

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pg 42

Emulsion Batches: .....

Date 1992 Apr 27/28 Observers (Hdy on 24"/19" photometers) Tn IFor .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC06576	HD135421	15 09 51	+62 13 46	20 57 14					500s
6577	—"—			21 05 48					600s
6578	—"—			21 14 22	21 22 50				500s
6579	BIAS (4)								
6580	COMP							FeSr Clear	120s
6581	FLAT							Tung A=1.4	33s
6582	HD135421	15 09 51	+62 13 46	21 31 27					
6583	—·—			21 40 01					
6584	—·—			21 46 35					
6585	—·—			21 57 09					
6586	—"—			22 05 43					
6587	—·—			22 14 17					
6588	—·—			22 22 51					
6589	BIAS								
6590	COMP							FeSr Clear	120 s

Spectr. Temp. ..... Dome Temp./Hum. 5.0°C 47% Transparency Conditions Part. Cloudy 50

Focus ....6.8.0.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion (CLAMBDA)	P.H.	Program	Remarks	Quality
270				CASS CCD	G 5505 1800 l/mm	200μ FULL	5880Å	8ci	Hdy pgm	Dome T=5.6°C / Hum = 45%	
200											
190								8ci			
sum of 0 exps								9ci		Clear Hydrain	
1000											
sum of 2											
1320											
701											
710											
685											
								5ci			

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pg # 3

Date 92 - Apr. 27/28 Observers Hdg (24"). Tn/Fbr.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
~~6590~~ 6591	FLAT	(NOT WRITTEN)		⇒ Camera problem				Tung A=44	38
6591	HD135421	15 09 51	+62 13 46	~~03~~ 22 44 28					
6592	—"—			22 53 02					
6593	—"—			23 01 36					
6594	—"—			23 10 10					
6595	—"—			23 18 44					
6596	—"—			23 27 18					
6597	—"—			23 35 52					
6598	~~BIAS~~ FLAT							Tung A=44	38s
6599	Comp							Fe Ar Coor	120
6600	~~FLAT~~ BIAS (4)								
6601	HD135421			23 51 20	~~03 59 40~~ ~~00 08~~				500
6602	"	(use Previous Comp only)		00 ~~00 00~~ ~~00 08~~	00 08 20				
6603	"	(use next Comp only)		00 08 28	00 16 48				500s
6604	"			80 1702					

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions . Occasional...cloud. patch

Focus .....6.80.....

Spectr. Temp. ..... Dome Temp./Hum. ...4.3°C/~50% (Gradual)

Power glitch @ 0007 EST
Exact @ 00 06 44 EST

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G-~~6505~~		5880Å	4ci			
800								4ci	Hdy Pgm.	Dome T = 4.4°C / Hum = 8%	
798											
802										~~Note~~ ~~Reset 0007 EST~~	
803											
648											
785											
760											
680 X								9ci		Repeat 7 *	
					*				GRating Back @ 00*10.		
450				This exp held grating back from Home to Reg posn.							
630											

53 pg #4

Emulsion Batches:

Date 1992 Apr 27/28 Observers Holy (24") F.B./Ta

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC06605	HD 135421	150951	+621346	00 2536		00 30E			
6606	—"—			00 3410					
6607	—"—			00 4244					
6608	Comp							Fe/Ar Star	120s
6609	FLAT							Tung A=4	38s
6610	BIAS (4)								
6611	HD 135421			01 00 51					500s
6612	—"—			01 09 25					500s
6613	—"—			01 17 59					300s
6614	—"—			01 27 55					500s
6615	—"—			01 36 29					500
6616	—"—			01 45 03					500s
6617	Comp							Fe/Ar Star	120s
6618	FLAT							Tung A=4	38s
6619	BIAS								

Spectr. Temp. ..... Dome Temp./Hum. +3.9°C 52% Transparency Conditions . PART. cloudy .....

Focus ...6:80.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
680	4"-8"			CASS * CCD	G=5505 1800 l/mm	200μ	5880Å	9c1	Hdy pgm	* THIS got Reset at 00 10 after power failure	
Sum of 2											
1200											
587	6-8"							9c1		DOME T = 3.9°C / HUM = 51.5%	
548								↓			
530	6-8"							↓			
580								↑		DOME T = 3.9°C / HUM = 51%	
490	6"-8"							↑			
530								9c1			

E5
Dy #5

Date 1992 Apr. 27/28... Observers Hdy. (24") Fbr. / Tn.

Emulsion Batches:
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.....
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
6620	HD135421	15 09 51	+62 13 46	02 02 26					500s
6621	—"—			02 11 00					500s
6622	—"—			02 19 34	[illegible]				500s
6623	Comp							Fe Dr Clear	120s
6624	Tung							Tung A=4	38s
6625	Bias(4)								
6626	HD135421	15 09 51	+62 13 46	02 35 25				500s	
6627	"			02 44	02 52 20				
6628	"			02 53 33					
6629	"			03 02	03 10 20				
6630	"			03 10 33					
6631	"			03 19 07					
6632	Comp							Fe Dr Clear	120s
6633	FLAT							Tung A=4	30s
6634	BIAS								

Spectr. Temp. ..... Dome Temp./Hum. 3.9°C / 50.7% Transparency Conditions .. P.t.ly. Cloudy 56

Focus .... 6.80 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
520	6"-8"		7.88 → 8.48	F7 V	G=5505 1800 ln/mm	200μ	5880Å	[illegible]	Hdy Pgm	Pretty Bad Seeing	
550											
790											
										Prom T = +3.5°C	
875	5"-5"							10ci	Hdy pgm		
920											
950											
860								11ci			
957											
580										by cloud passing.	

57
pg #6

Date ..1972. April 27/28 Observers .Hdy. (24") Fbr./ Tn.

Emulsion Batches:
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.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc06635	HD135421	15 09 51	+62 13 46	03 34 56					500s
6636	—" —			03 43 30					500s
6637	—" —			03 52 04					500s
6638	—" —			04 00 52					500s
6639	—" —			04 09 35					500s
6640	COMP							Tant Clear	120s
6641	FLAT							Tant A=14	3.8s
6642	BIAS(4)								
6643	HD177724	19 00 49	+13 43	04 29 54	04 35				24 1/2s
6644	COMP							Tant Clear	120s
6645	FLAT								
6646	BIAS								
6647	HD177724			04 40 17	04 43				
6648	DARK								22 55s
6649	DARK								22 55s

Spectr. Temp. ..... Dome Temp./Hum. 36°C/48% Transparency Conditions ..... Clear 58

Focus .. 6.80 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
750	3"	←	V 7.88 → 8.48	← F7 IV	G=5505 1800 i/mm	200 μ	λ = 5880 Å	11 ci	Hdy Pgm		
650											
660											
670											
730											
								5 ci			
								4 ci			
								1 ci			
37034										8800 AOH max.	
~~7000~~											
10,000											
							All to Reduced and Corrected				

59 #1 on (24")

Emulsion Batches: .....

Date ..92.-Apr. 28/29.... Observers ....Hdg. I.F.Dr..... .....

90 again Done T = -101°C .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
6650	BIAS (4)									
6651	Comp							Fe Sr Clear	90s	
6652	FLAT							Tung A = 1/4	33s	
6653	HD 135421	15 09 51	+62 1346	20 01 17					500s	730
6654	—— " ——			20 09 51					500s	830
6655	—— " ——			20 18 24					500s	935
6656	—— " ——			20 26 58					500s	740
6657	—— " ——			20 35 32					500s	1000
6658	—— " ——			20 44 06					500s	850
6659	—— " ——			20 52 40	21 01 00				500s	810
6660	Comp							Fe Sr Clear	90s	
6661	FLAT							Tung A = 1/4	33s	
6662	BIAS (4)									
6663	HD 135421	15 09 51	+62 1346	21 07 53					500s	1150
6664	—— " ——			21 16 27					500s	940

Spectr. Temp. ..... Dome Temp./Hum. 10.°C / 38.2% Transparency Conditions ..... Clear 60

Focus .... 6.80 .....

Spectr. Temp. ..... ~~Dome Temp./Hum.~~ 480 0 50 1024 41

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	Hα(800) G=6020	200 μ	Hα	1ci		CLAMBDA = 6563Å	
								3ci			
								4ci			
730	1"	V 7.88 →8.48	F7 V					5ci	Hdy PgM		
830								5ci		DOME T = 9.2°C / HUM = 40 2%	
885								5ci			
740								5ci		USE <REPEAT ESTER8M.bat 7>	
1000								5ci			
850								5ci			
840								5ci			
								3ci			
								4ci			
								1ci			
450		V 7.88 →8.48	F7 V							(OFFSETS: Δα = 16" Δδ = 2'42")	
760											

61

#2

Emulsion Batches:

Date 92 - April 28/29 Observers Hdy. (24") / Fbr.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.
cc6665	HD135421	15 09 51	+62 1346	21 25 00					300s	920
6666	—"—			21 33 34					500s	860
6667	—"—			21 42 07					500s	870
6668	—"—			21 50 41.					500s	430
6669	—"—			21 59 15	22 07 35				500s	745
6670	Comp							FeAr Clear	90s	
6671	FLAT							Tung A=14	33s	
6672	BIAS (4)									
6673	HD135421	15 09 51	+62 1346	22 15 18					600s	515
6674	—"—			22 23 52					500s	870
6675	—"—			22 32 25					500s	830
6676	—"—			22 40 59					500s	910
6677	—"—			22 49 33					500s	820
6678	—"—			22 58 07					500s	810
6679	—"—			23 06 41	23 15 15				500s	760

Spectr. Temp. ..... Dome Temp./Hum. 8.6°C / 41.0 Transparency Conditions ..... CLEAR .....

Focus ..... 6.80 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
920		V 7.88 → 8.18	F7 V	Coss CCD	1800 Gr/mm α = 6020	200 μ	λ_c = 6563 Å	Sci	Hdy Pam		
860								Sci			
770								Sci			
430								Sci			
745								Sci			
								3ci			
								4ci			
								1ci			
820		V 7.88 → 8.48	F7 V					Sci	Hdy Pam	Dome T: 8.1°C / H = 42.7%	
980								Sci		Dome wiping down readout	
830								Sci			
960								Sci		Dome T = 7.3°C / Hum = 47.7%	
670								Sci		NOTE: LOST STAR FOR A MINUTE. DEC. JUMPED OUT 2'	
890	1"-2"							Sci			
980								Sci			

63
#3

Emulsion Batches: .....

Date 92 - APRIL 28/29 Observers ~~Hdy.~~(24") / Fbs (Mki for a couple of hrs) .....

.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
6680	COMP							FeAr Clear	90s
6681	FLAT							Tung A = 1/4	33s
6682	BIAS (4)								
6683	HD135421	15 09 51	+62 13 46	23 22 20	23 27				280s
6684	—"—	15 09 51	+62 13 46	23 27 14	~~23 30 33~~				200s
6685	COMP (at λ=6563Å)							FeAr Clear	90s
6686	BIAS (4)		{NaD}						
6687	COMP							FeAr Clear	120s
6688	FLAT							Tung A = 1/4	33s
6689	HD135421 (NaD)	15 09 51	+62 13 46	23 42 ~~00~~					
6690	—"—			23 50 33					
6691	—"—			23 59 07					
6692	—"—			00 07 41					
6693	—"—			00 16 15					
6694	—"—			00 24 48	00 33 08				

Spectr. Temp. ..... Dome Temp./Hum. 6.9°C / 46.9% Transparency Conditions ..... CLEAR 64
Very Clear.

Focus 6.80

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					1800 l/mm G = 5505		λ = 6563 Å				
350		V 7.89 → 8.48	F7 I								
300											
										MOVE TO NaD...	
					G = 5505 1800 l/mm	200 μ	λ = 5880	1ci		{NaD}	
								3ci			
								4ci			
1,180		V 7.88 → 8.48	F7 I		1800 l/mm G = 5505		λ = 5880 Å	5ci	Hdy Pam	Dome T = 6.8°C / Hum = 44.8%	
1,230											
1,100									Hdy Pam		
1,300		V 7.88 → 8.48	F7 I								
1,160									Hdy Pam		
1,150											

65
#4

Emulsion Batches: .....

Date .92.-APRIL 28/29. Observers .Hdg.(24")/Fbr.(1M½) .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD 6695	COMP (BV Dra NaD)							FeAr Clear	120s
6696	FLAT (BV Dra NaD)							Tung A=¼	33s
6697	COMP (FOR HD 87901)							FeAr Clear	120s
6698	FLAT (HD 87901)							Tung A=¼	33s
6699	HD87901 (λ=5880)	10 03 03	+12 27	01 07 44	01 10				
6700	HD87901 (λ-5880)	10 03 03	+12 27	01 11 58	01 14 30				
6701	HD87901 (Hα)	10 03 03	+12 27	01 19 04	01 28 30				
6702	HD87901 (Hα)	10 03 03	+12 27	01 ~~19~~ 22 ~~24~~	01 25 00 ~~30~~				
6703	COMP							FeAr Clear	90s
6704	FLAT							Tung A=¼	33s
6705	BIAS(4)								
6706	HD135421	15 09 51	+62 13 46	02 11 55					500s
6707	—" —			02 20 29					500s
6708	— " —			02 29 03					500s
6709	— " —			02 37 37		1 47 W			500s

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .... C'est Bon! .....

Focus .... 6.80 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					1800 l/mm G = 5505		λ = 5880 Å			STILL @ Na D	
40,000							λ = 5880 Å		TELLURIC S+O.	TELESCOPE IN STRANGE POSITION!	
10,000									TELLURIC S+O.		
26,000					1800 l/mm G = 6020		λ = 6563			BACK TO H_α!	
675	1"	V 7.5 48	F7V							LOST A BIT OF TIME DUE TO COMPUTER PROBS.	
600											
350											
630										DOME T = 5.4°C HUM = 43.4%	

67 #5

Emulsion Batches: .....

Date ..92 April 28/29.. Observers ...Hdg.(24")/Fbr..... 90 cgain .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
6710	H0135421	15 09 51	+62 13 46	02 46 11		0156 W			500s
6711	—" —			02 54 45	3·03	02 04 37 W			500s
6712	Comp							FeAr Clear	70s
6713	FLAT							Tung A=Yel	33s
6714	Bias (4)								
6715	H0135421	15 09 51	62 13 46	03 10 20					500s
6716	—" —	15 09 51	+62 13 46	03 18 54					500s
6717	—" —			03 27 28					500s
6718	—" —			03 36 02					500s
6719	—" —			03 45 [illegible]					500s
6720	—" —			03 53 10					500s
6721	Comp							FeAr Clear	70s
6722	FLAT							Tung A=Yel	33s
6723	Bias (4)								
6724	H0135421	15 09 51	+62 13 46	04 08 06					500s

Spectr. Temp. ..... Dome Temp./Hum. . 6.2°C / 41% Transparency Conditions ..... Clear 68

Focus ..... 6.80 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

480 0 50 1024 4 1 ccdcmt

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
750		✓ 7.88 → 8.48	F7 V	Cass CCP	1800l-/mm a = 6020	200 μ	λ=6563Å	H_α	Hdy Pgm		
920											
900								3ni	Hdy Program	Dome T = 5.3°C Hum = 45%	
920											
600	(Don't Quite Know what Happened Here)									clambda = 6563Å	
1,090											
1,185											
1,004											
1,300											

69
#6

Date ....92-April 28/29.... Observers ..Hdy (24")/Fbr.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc6725	HD135421	15 09 51	+62 13 46	04 16 40					50s
6726	——"——			04 25 14	04 33 40				50s
6727	Comp							FeAr Clear	70s
6728	FLAT							Tung A=1/4	33s
[redacted]	[redacted]								
6729	HD 177724	19 00 49	+13 43	04 50 35	04 52 54				
6730	HD 177724			04 53 36					
6731	Comp							FeAr Clear	90 sec
6732	FLAT							Tung A=1/4	33sec
6733	BIAS(4)								

Spectr. Temp. ..... Dome Temp./Hum. 5.2°C/46.4% Transparency Conditions ..... Clear .....

Focus ..... 6.80 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1,130		V 2.88 →8.48	F7 V	CASS CCD	1800 l/mm G=6020	200 μ	H_α	Sci	Hdy Pam	λ = 6563 Å	
1104											
40,000									TELLURIC STD.		
									— " —		
					ALL TO PERSEUS		AND			WORM	
										Plot	

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Date 1992 Apr 29/30 Observers Hdy / Fbr TESTS

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ccD6734.fits	BIAS (4)								
6735	Sky			19 11 39		0^h	$+30°$		28 sec
6736	Tung Flat			19 14 29			〃		30
6737	FeAr Comp			19 15 57					70
6738	Sky			19 20 47		0^h	$+50°$		123 sec
6739	Tung Flat			19 23 58			〃		30
6740	FeAr Comp			19 25 04					70
6741	Sky			19 28 46		0^h	$+70°$		915 sec
6742	Tung Flat			19 45 30			〃		30
6743	FeAr Comp			19 46 36					70
6744	BIAS (4)			19 48 43					
6745	DARK			19 55 03		12^h	$+61° 50'$		225 sec
6746	BIAS (4)								
6747	DARK			20 03 55		0^h	$+43°40'$		225 sec
6748	DARK			20 10 45	21 10 45	0^h	$+43°40'$		3600 sec
6749	BIAS (4)			21 14 50					
NO MORE TESTS									

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions OVERCAST .....

Focus 6.80 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
50 000										sky flat	
50 000										sky flat	
50 000										sky flat	
										near platform, NORTH	
								6ci			
								7ci		Cosmic ray collection	
										starting to rain $T_{CCD} = -101.3$	
							ALL TO	PERSEUS	AND	WORM	

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Emulsion Batches:

Date ..92: April 30/May 1 Observers ....E.Hdy.3./F.B.C.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc0675O	COMP			[illegible]				FeAr Clear.	90S [illegible]
6751	FLAT							Tung A=1/4	33s.
6752	HD155937	17 09 30	+16 29	21 49 31					600s
6753	BIAS (4)								
6754	HD155937			22 07 30					
6755	—" —			22 17 44					600s
6756	—" —			22 28 58					600s
6757	—" —			22 39 13					600s
6758	—" —			22 49 27	22 59 27			[illegible]	[illegible]
[illegible]	[illegible]							[illegible]	[illegible]
[illegible]	[illegible]								
6759	COMP							FeAr Clear	90s
6760	FLAT							Tung A=1/4	33s
6761	Bias (4)								

Spectr. Temp. ..... Dome Temp./Hum. ...7.7°C/75% Transparency Conditions ...pt.ly. cloudy..... 74

Focus .....6.80.....

Spectr. Temp. ..... Dome Temp./Hum. ...6.7°/73%(2300) * NO ENCODER PROGRAM!

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
[redacted]		8.29 → 8.77	F8	CASS CCD	1800 l/mm c: 6020 [redacted]	200 μ	λ=6563Å	Hα	Hdy Pam	~~[redacted]~~	
										480 0 50 1024 4 1 ccdfmt	
147 x 4/3											
								1ci			
		8.77	F8					3ci			
349 for 2 @1"										194 ms INTEGRATION	
140											
230											
185											
								4ci			
								5ci			

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Page 2

Date 1992 April 30/May 1 Observers ... Hdy (24") / Fer ... NO ENCODERS!

Emulsion Batches: .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
~~6762~~	HD155937	17 09 30	+16 29	23 07 30	23 17				600
6763	—"—			17 45					600
6764	—"—			27 59					600
6765	—"—			38 14					600
6766	—"—			23 48 29					600
6767	—"—			23 58 44	00 08				600
6768	COMP							FeAr Clear	90s
6769	FLAT							Tung A=1/4	33s
6770	BIAS (4)								
6771	HD155937	17 09 30	+16 29	00 14 54					600
6772	—"—			00 25 08					600
6773	—"—			00 35 23					600
6774	—"—			00 45 38	* {THIS EXPOSURE 3 min. LONGER. WASN'T IN CCD WINDOW.				600
6775	—"—			00 58 59	*				600
6776	—"—			01 09 13					600

Spectr. Temp. ..... Dome Temp./Hum. 6.2°C / 73.2% Transparency Conditions ..Fabulously Clear! 76
(@ 2308)
Focus .....6.80.....
Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
sum of 2 ~~570~~	~1"	✓ 8.29 →8.77	F8	CASS CCD	1800 G=6020	200 μ		Hα	Hdy Pgm	λ = 6563Å	
570								3ai		Mki filling in for 1 hour lunch break.	
315								3ci			
305								3ci			
318								3ci		DME T = 5.9°C / HUM = 75.6%	
								3ci			
								4ci			
								5ci			
								1ci			
372		✓ 8.29 →8.77	F8		G = 6020		λ=6563Å	3ci	~~Hdy~~ pgm.	DME T = 5.8°C / HUM: 76%	
350											
323											
460										WASN'T IN CCD WINDOW FOR READOUT	
388										HUMIDITY = 78% / T = 5.1°C	
460											

77
#3

Date ..1992 - April 30/May 1 Observers ...(Hdy 24")/Fbr....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
cc06777	Comp							FeAr Clear	90s	
6778	Flat							Tung A: 1/4	33s	
6779	Bias(4)									
6780	HD155937	17 09 30	+16 29	01 26 04					600	420
6781	—— " ——			01 36 19					600	365
6782	—— " ——			01 46 34					600	404
6783	—— " ——			01 56 49					600	380
6784	—— " ——			02 07 03					600	350
6785	—— " ——			02 17 18	02 27 32				600	444
6786	Comp							FeAr Clear	90s	
6787	Flat							Tung A: 1/4	33s	
6788	Bias(4)									
6789	HD155937	17 09 30	+16 29	02 38 14					600s	350
6790	—— " ——			02 48 29					600s	326
6791	—— " ——			02 58 44					600s	430

Spectr. Temp. ..... Dome Temp./Hum. 5°C / 78% (0120 Transparency Conditions ..... CLEAR .....

Focus .. 6.8.0 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
420		V 8.29 → 8.77	F8	CASS CCD	1800 a=6020	200 μ	λ=6563Å	3ci	Hdy PAM	THIS IS TOTAL EXCITEMENT...	
365											
404											
380										Dome T=4.6°C / Hum=78.8%	
230											
444										*NOTE: DOME IS BEGINNING TO DRIP WATER FROM SHUTTERS. NO SLOT, BUT NOTICEABLE.	
350		V 8.29 → 8.77	F8	CASS CCD	1800 a=6020	200 μ	λ=6563Å	3ci	Hdy Pgm		
395										MIRROR HEAT AND	
400										BACK FAN ACTIVATED.	

79
#4

Date 1992 - April 30/May Observers (Hdy 24") / Fb

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc6792	HD155937	17 09 30	+16 29	03 08 59					600
6793	—— " ——			03 19 14					600
6794	—— " ——			03 29 28	03 3928				600
6795	Comp							FeAr Clear	90s
6796	TuNa							Tung λ=4	33s
6797	Bias (4)								

Spectr. Temp. ..... Dome Temp./Hum. 4.4°C/78.8% Transparency Conditions ... CLEAR ... 80

Focus ... 6.80 ...

Spectr. Temp. ..... Dome Temp./Hum. 4.1°C/79.6% @ 0320 (GETTING WORRIED)

90 GAIN CCD T = -101°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
402		Y 8.29 → 8.77	F8	CASS CCD	1800 G=6020	200 μ	λ=6563Å	3ci	Hdy Pgm	Hα	
292										{ GETTING CONCERNED	
235										ABOUT HUMIDITY }	
										NOW 79.6%	
										HUM = 80.5% @ 0345	
				ALL TO PERSEUS AND WORK							

81 #1 SAT-SUN No OBS for Reg Tour

Date 1992 - MAY 2/3 Observers (Hdy 24") / Tn / Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
ccd 6798	BIAS (1)	PARTLY Saturated	(Hdy interest)	19 35 12					
6799.fts	BIAS (4)			0017					
6800	Comp							Fc&r Clear	120s
6801	FLAT							Tony 1=½	38s
6802	HD155937	17 09 30	+16 29	00 28 54		E			
6803	"	"	"	00 39 09					
6804	"			00 40 00					678s
6805	"			01 01 43					
6806	"			01 11 58					
6807	"			01 22 13	01 32 13				
6808	Comp							Fc&r Clear	120s
6809	FLAT							Tony 1=½	38s
~~6810~~	~~BIAS (4)~~	not written							
6811	HD155937			01 39 37					
6812	"			01 49 52		00 45E			

Spectr. Temp. ..... Dome Temp./Hum. 7.9°C/68.5% Transparency Conditions ..... CLEAR 82

Focus .... 6.80 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

CGAIN = 90 CCD T = -100°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	CCDT -21°C			CASS CCD	Before Tapup		λ=5880 Å			DELAY START TIME DUE TO CONDENSATION ON TELESCOPE.	
										Dome T = 7.6°C	
								3c;			
								4c;		10,000 ADU MAX.	
	4"	↓ 8.29 → 8.12	F8		1800 a=5505	200 μ	λ=5880Å	~~5c;~~	Hdy Pgm.	AIRMASS = 1.29 guiding	
SUM OF 2 700								5c;			
332								5c;			
270				Note	HD 55937 guided for most part on possible contamination from				South 1/3 of image to avoid any faint nearby companion star.		
275											
230											
										Dome T = +6.6°C	
240	5"									guiding	
300											

83 pg#2

SAT-SUN

Date 92-May 2/3 Observers (Hdy 24") Tn/Fa

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
6812	HD155937	17 09 30	+16 29	02 00 07					
6813	"			02 10 22					
6814	"			02 20 36					
6815	"			02 30 51					
6816	BIAS (4)								
6817	Comp							Fe Ar Clear	120s
6818	FLAT							Tung A-14	36s
6819	HD155937	17 09 30	+16 29	02 50 47					
6820	"			03 01 02					
6821	"			03 11 17					
6822	"			03 21 31					
6823	"			03 31 46					
6824	"			03 42 01					
6825	BIAS (4)								

Spectr. Temp. ..... Dome Temp./Hum. +6.5°C 66% Transparency Conditions ..... CLEAR 84

Focus ... 6.80 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... C LAMBERT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
290		V 8.29 227		CASS CCD	1800 a=5505	200μ FULL	5880Å		Hdg pgm	λ = 5880 Å (NaD)	
305											
sum of 2											
720								6ci			
								3ci			
								4ci		Dome T = 6.0°C Humidity = 66.9%	
385								7ci		guiding	
400											
375											
350											
425										Dome T = ~~5.9°C~~ 5.4°C Humidity = ~~64.2~~ 68.4%	
450											

85

3

Date ...92.: May. 2/3.... Observers ..(Hdy 24")...Tn/Fbr...

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
~~c~~c6826	Comp							Fe Ar Cu	120s
~~c~~c6827	Flat							Tung A-1/4	38s
6828	HD 155937			04 00 33					600s
6829	—"—								
6830	HD 177724	19 00 49	13 43 00	04 24 58	04 30				
6831	"			04 30 44					
6832	"			04 35 53	04 41				
6833	Bias (4)								
6834	Flat							Tung A-1/4	40s
6835	Comp							Fe Ar Cu	120s

Spectr. Te
Focus ...
Spectr. Te
Exp. Mir

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ... Fine ... 46

Focus ... 6:80 .....

Spectr. Temp. ..... Dome Temp./Hum. 5:4°C ... 71% CUMBOLL

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD		200μ	5840Å				
455											
515											
40 000								8c:	Telluric Std	14 K max	
36000											
36000											

All to Parsons Green

87 pg #1

Mon-Tues

Date 1992 MAY 4/5 Observers H.dy ... Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCO 6836 CC06837	Focus Test							FeAr Clear	10/15
6838	BIAS(4)								
6839	Comp							FeAr Clear	50sec
6840	9 Aur D	9 AUR COORDS 04 5851	+51 28	20 3919	21 03 06				1430sec
6841	9 Aur D			21 0630	21 1952				802sec
6842	BIAS(4)								
6843	Comp							FeAr Clear	50sec
6844	FLAT							TUNG A-1/4	
6845	Comp								130sec
6846	HD87901	10 0303	+12 27	~~21 40 25~~ ~~21 58 41~~	~~21 41 25~~ ~~21 59 30~~				
6847	FLAT							TUNG N-1/4	8sec
6848	BIAS(4)								
6849	HD87901			21 58 00	21 ~~59 25~~ 59 30				
6850	Comp							FeAr Clear	40s
6851	FLAT							TUNG Clear	28s

Spectr. Temp. +7.4°C Dome Temp./Hum. 7.6°C 47% Transparency Conditions FINE in NW 88

Focus G:90 for Both gratings

Spectr. Temp. ..... Dome Temp./Hum. .....

90 CGAIN CCD T = -101°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G 3606 831	300μ Full	6563Å	10ci 11ci		CCDFMT 120 0 12 1024 40 1	
										353 0 50 1024 9 1 CCDFMT	
								3ci		I can see 9 Aur D - Comparison	
6 (SIX)								5ci	Bln pgm	Δ RA = -00 00 38 Δ Dec = -00 01 06	
1 (ONE)								6ci	Faint star visible for guiding @ 300 m sec Int		
										Dome T = +5.4°C	
										13 k MAX	
								3ci			
20 000								7ci	Telluric Std	12.5 k MAX	
								4ci		13 K MAX BDI	
								9ci			
30 K					G-4800 1500	300μ FULL	4560Å	9ci	Hg pgm (Telluric Std) 6 k max		
								8ci			
								12ci			

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Emulsion Batches: .....

Date 1992 MAY 4/5... Observers ...Hdg..Tz....MKi.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD 6852	FLAT							JUNC Clear	26s
6853	Comp							FeAr Clear	40s
6854	HD 155937	17 0930	+16 29	22 1609	22 2610	04 12E			600s
6855	"	"	"	22 40 58					600s
6856	Comp Hβ			23 00 24				FeAr Clear	40s
6857	Comp Hα							FeAr Clear	90s
6858	HD 155937	17 0930	+16 29						
6859	HD 87901	10 0303	+12 27	23 41 26	23 50 30	04 45W			
6860	BIAS(4)								
6861	Comp	accidently set to 909 secs instead of 90sec should be OK.						FeAr Clear	909s
6862	FLAT	Drive off a point of four-90s Regulus						JUNC N=1/4	33s
6863	Comp							FeAr Clear	90s
6864	HD 177724	19 0049	+13 43	00 23 51	00 33 30				577s
6865	"			00 34 00	44 43				
6866	"			00 45 05	00 58 10				
6867	"			00 58 36	01 13 40				

Spectr. Temp. ..... Dome Temp./Hum. +5.5°C ... 42% Transparency Conditions PART. Cloudy 90

Focus ... 6.90 ..... south half of SKY then all of it

Spectr. Temp. ..... Dome Temp./Hum. ..... CLEAR AND DRY

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G = 4800 / 1800 l/mm	300u Full L	4860Å	12c;		12.5 MAX	
90	3" →	V 8.29 8.77	F8					~~13c;~~	Hdg pgm	V cloudy cirrus	
90								14c;			
2907								~~8c;~~			
					G 6020 1800 l/mm		6563Å	13c;			
							"	15c;	Hdg pgm	WEAK!	
30769								16c;	telluric std	2.2 AIRMASS	
								1c;			
								13c;	STRong Comp		
								12c;		13 K	
								8c;			
1627								17c;	Telluric Std	Cloudy 1.97 AIRMASS X=1.97-1.90	
4110								17c;		X=1.89-1.80 more cloud	
13500								17c;		X=1.795-1.694 more cloud	
5157										X=1.695-1.60 more cloud	

91 pg #3

Date 1992 May 4/5 Observers Hay / Tn

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
6868	Comp			01 15 45				FeAr ~~Comp~~	90s
6869	FLAT FOR ZETA AUR							Tung A=1/4	
6870	BIAS (4)			01 19 30					
6871	Comp FOR ARCTURUS							FeAr Clear	90s
6872	HD 124897	14 11 06	+19 42 30	01 25 26	01 27 57				
6873	Comp							~~FeAr~~ Clear	90s
6874	Flat FOR ARCTURUS							Tung A=1/4	33s
6875	Comp FOR NOVA			01 39 37				FeAr Clear	90s
6876	Nova Cyg 92	20 27 43	+52 17 39	01 42 47	01 52 48				
6877	Comp			01 56 14				FeAr Clear	90s
6878	FLAT FOR NOVA							TUNG A=1/4	33s
6879	BIAS (4)			02 05					
6880	DARK			02 07					225s
~~6881~~	~~DARK~~ (NEVER DONE)								~~225s~~
6881	BIAS (4) WHILE TOPPING UP								

Spectr. Temp. ..... Dome Temp./Hum. ~~11.5°C~~ ..... 47% H Transparency Conditions ... Cloudy .....

Focus .... 6.90 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

CLAMBDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
6170				CASS CCD	G=6020 1800	200u	6563Å	~~8ci~~			
										13.7 K ADU	
5972								~~8ci~~			
10,000								18ci	Std vel	6700 K MAX	
								8ci			
								12ci		13.0K ADU MAX	
171	3"							19ci	Nova pyx	3.4 K ADU MAX Cloudy	
								~~8ci~~		~~13.4K ADU MAX~~	
										13.4K ADU MAX	
										WHILE TOPPING UP T$_{200}$ ~ 200-3	

93 Pg #1 Tues-Wed

Date 1992 MAY 5/6 ... Observers Hdy ... Tn .....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCO6882 CCO6883	Focus Test	Comp / stellar	HURTMAN Posn	2030	01 W	+12 30		FeAr clear	50/80
6884	BIAS(4)								
6885	HD87901	10 0303	+12 27	20 4245	204350				
6886	" Regulus			2045	20 4619				
6887	Comp							FeAr Clear	90s
6888	FLAT at Regulus posn							TUNG A=1/4	33s
6889	FLAT at							"	"
6890	Comp							Fe Ar Clear	90s
6892	HD155937	17 0930	+46 29	21 1546	21 2546				600s
6891	BIAS(4) Before Stellar exp								
* 6893	HD155937			21 2600				FeAr clear	600s
6894	BIAS (4)								
6895	Comp								
6896	HD 174897	14 11 06	+19 42 30	22 0404	22 0508	01 30 E			
6897	Comp								

Spectr. Temp. 7.4°C Dome Temp./Hum. 7.5°C 65% Transparency Conditions .. PART. Cloudy

Focus ... 6.7.7

Spectr. Temp. ..... Dome Temp./Hum. .....

90 CCGAin CCDT -> -100°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G=6020 1800 l/mm	200μ Full	6563Å	10ci 11ci	Focus	Stellar vus/ Red	
								.		CCD FMT 480 0 50 1024 41	
37K									Telluric Std		
38K								5ci	Telluric Std		
								3ci			
								4ci			
								4ci		13 K max 400 pixel	
105								7ci	Hdg pgm	cloudy	
130 (SHY)										mostly cloudy	
								3ci			
11K								8ci	Std bel	cloud at 1ST * elevation START Not Flat	
								9ci			

95 pg #2

Date 1992 MAY 5/6 Observers Hdg/I.T.S

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD6898 6899	DARKS x2			22 25					225s
6900	BIAS(4)			01 30					
6901	Comp							Feather Clear	90s
6902	HD124897	14 11 06	+19 42 30	01 38 08	01 38 45	02 04W			37s
6904	Comp written out of order							Feather Clear	90s
6903	FLAT							TUNG A=1/4	33s
6905	BIAS(4)			02 08	Dome T = 6.0°C				
6906	FLAT							TUNG A=1/4	33s
6907	Comp							Feather Clear	90s
6908	HD155937 Companion ↳			02 27 40					1166s
6909	HD155937			02 51 00	03 01				606
6910	AKHer C	↳ SAME STAR		03 04 16				2	1000s
6911 6912	BIAS(1) x2								
6913	Comp							Feather Clear	166s
6914	FLat							TUNG A=1/2	30s

Spectr. Temp. ..... Dome Temp./Hum. +63°C 69% Transparency Conditions ... Cloudy, mostly ... 96

Focus ... 6.77 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G=6020 1800	300u FULL	6563Å	~~1c?~~	All ed, lel's	Backed up to 40Rms: persons	
								1c;		Dome T = +6.5°C	
								12c;			
11K			K					13c;	Std vel	1.23 AIRMASS 7 frames, APA	
								14c;			
								4c;	** Noise from CCD power supply noticed	Hits on previous frames.	
								1c;	Bias (4)	without noise CAMERA unplugged	
								Note	CCD EEV Camera power unplugged for Readouts.		
								5c;			
109	1"	~~1.20~~ V						21c;	(After C) Hg pgm	480 0 200 1024 1 1 Sep 4-5 from After	
@ 830	1"	V829 -8.17	F8					23c;	"	4 frames grabbed with Guiding	
110								23c;	Point comp again		
		FRAMES Grabbed						24c;		All with 1-1 binning.	
		called [FM00000A, B, C. FTS]						25c;			
								~~22c;~~	21c;	10K max ADU	

97 pg #3

Emulsion Batches: .....

Date 1992 MAY 5/6 Observers Hdy (24") Ty

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCO6915	Comp							FeAr Clear	90s
6916	BIAS(4)								
6917	FLAT			~~03 4275~~				TUNG A=1/4	33s
6918	HD155937	17 09 30	+16 29	03 4225					604s
6919	"			03 5537					601s
6920	"			04 0702					
6921	FLAT							TUNG A=1/4	30
6922	Comp at HD155937 posn.							FeAr Clear	90s
6923	HD177749	19 00 49	+13 49	04 2546	04 29				
6924	"	"	"	04 30 17	04 34				
6925	BIAS(4)								
6926	Comp							FeAr Clear	90s
6927	FLAT							Tung A=1/4	33s
6928	FLAT							"	33s

Spectr. Temp. ..... Dome Temp./Hum. +5.3°C 67% Transparency Conditions ... Clear .....

Focus .... G:7.7 .....

Spectr. Temp. ..... Dome Temp./Hum. +4.8°C 68%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm	300u Full	Ha	15ci	back to	4800 0 50 1 2 3 4 9 1 (Binning)	
								~~16~~ 1ci			
								~~16~~ 17ci			
790	<1"							17ci	Hdy pym		
760	<1"							18ci	"		
	1"							19ci	"		
38K								~~20ci~~	Telluric Std.	(CAM on for Readout) 10K MAX	
38K								20ci	"	CAM OFF for Readout	
5432											
										12.4K	
							All to	Perseus	WARM.		
							TO	6899	on Ha by C		

'99 pg #2

Emulsion Batches: .....

Date 1992 MAY 6/7 Observers Hdg Tu ....

Note Time in headers .. x .. 4 sec. ahead of WWV time

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc06929	BIAS(4)								
6930	SKY FLAT			19 42 44		00 30W	+16 30		80s
6931	Comp					"	"	FeAr Clear	180s
6932	FLAT					"	"	TUNG A=1/2	
6933	BIAS(4)								
6934	BIAS(4)								
6935	Comp							FeAr Clear	90s
6936	Flat							Tung A=1/4	33s
6937	HD87901	10 03 03	+12 27	20 23 09					39s
6938	"	"	"	20 25					50s
6939	FLAT							Tung A=1/4	33s.
6940	FLAT					06 E	+16 30	"	30s
6941	Comp							FeAr clear	90
* 6945	BIAS(4) WRITER to HEAD								
6942	HD155937	17 09 30	+16 29	20 53 52		05 27E			600s

Spectr. Temp. ..... Dome Temp./Hum. +9.6°C ... 38%H Transparency Conditions .... Fine 100

Focus ... 6.77 .....

Spectr. Temp. ..... Dome Temp./Hum. +8.8°C ... 37.5%H 40CCAIN CCDT = -101°C * FAILS on 41 45nd

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CCD CASS	1800	300u Full Length	Hd			480 0 200 1 1 ccdfmt DRIVE OFF	
17,900			G2					3ci	Hdg Sky FLAT	(Crystal clear)	
11,500								4ci			
								5ci			
										480 0 50 1024 4 1 ccdfmt	
5731								3ci			
								4ci		13.4 K	
40K	1"	1.36 ✓	B7n					~~5ci~~	Telluric Std	8K max	
52K								5ci	"		
								4ci		13.4 K	
								4ci			
								3ci			
								1ci			
190		8.29 ✓ -8.77	F8					6ci	Hdg pgm	3.48 A.M mass	

101

pgs

Emulsion Batches: .....

Date 1992 MAY 6/7 .... Observers [Hdy] 24" Rone ... Tq ... Mki

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr
CC06943	HD155937	17 09 30	+16 29	21 04 07					60s	
44	"	"	"	21 14 22					60s	
46	"	"	"	21 26 06					60s	
47	"			21 36 20					60s	
48	"			21 46 35					60s	
6949	BIAS(4)									
6950	Comp							FeAr Clear	90s	
6951	FLAT							TUNG A-1/4	30s	
6952	HD155937	17 09 30	+16 29	22 04 08					60s	
6953				22 15 20						
54				22 25 34						
55				35 50						
56				46 04						
57				22 56 20						
58	BIAS(4)									
59	FLAT							TUNG	30s	

Spectr. Temp. ..... Dome Temp./Hum. 8.9°C.... 38% Transparency Conditions ..Fine.... Hazy at Low Alts..

Focus ... 6.77 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... 90CGAin CCD T = -101°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
225	3"		F8	CASS CCD	6:6020 1800/m/mm	200u Full	Hd		Hdg pgm	(Faint Comp now visible and well separated from primary)	
300								6ci	"		
350	3"-5"							7ci	"	VAR seeing	
340	2"-5"										
430	3"							7ci			
										Dome T = +8.6°C	
								8ci			
								4ci		12.5 K MAX	
510								9ci		2.035 AIR MASS	
								10ci	Using Repeat SSTARS no BAT 5		
700.											
800										Star drifted.	
500											
655								10ci			
								4ci			

103 pg 43

Date 1997 MAY 6/7 Observers (Hdg.) J.n Sanc. Mt.

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC06960	Comp							Fe Ar Clear	90s
61	HD155937	17 09 30	+16 29	23 12 49		03 07E	e, zone	→Redleat	600s
62				23 23 19			Repeat 5		600s
63				23 33 33					
64				23 43 48					
65				23 54 03					
66				00 04 17					
67	BIAS(4)								
68	Comp							Fe Ar Clear	40s
69	FLAT						0	Tung A=1/4	30s
70	HD155937	17 09 30	+16 29	00 20 55					
71				00 31 10					
72				00 41 25					
73				00 51 40					
74				01 01 55					

Spectr. Temp. ..... Dome Temp./Hum. +80°C 39.5% Transparency Conditions VSI hazy 104

Focus .... 6.77 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	.	V		CASS CCD	G 6020 1800	200μ	HL	~~HC~~			
880	1"-2"	8.29 → 8.77	F8					12c;	Hdy Pgm		
950								13c;		1.485 AIR MASS	
960	1"										
910	1"										
900	1"										
820	1"-2"							13c;			
										Dome T = +7.4°C	
								~~Hc;~~			
								~~Hc4c;~~			
630								14c;			
800.											
580.											
620											
650											

105

pg #4

Emulsion Batches:

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Date ..1992 MAY 6/7.. Observers .[Hdg]....Tn...mki.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCO6975	HD155937	17 09 30	+16 29	01 12 09					
76	BIAS(4)								
77	FLAT							THIG A-1/4	30s
78	Comp							FeAr Clear	90
79	HD155937	17 09 30	+16 29	01 29 20	≈ 01 40		Exp-Readout		634
80	ADS10408B	"	"	01 41 02	02 01 02	00 29 E			1200s
81	HD155937			02 01 50					600
82	— " —			02 12 22					675
83	BIAS(4)								
84	Comp							FeAr Clear	90s
85	FLAT							THIG A-1/4	30s
86	HD155937			02 30 58			Exp-Readout		601
87	— " —			02 42 12			"		606
88				02 53 07			Repeat 3		600
89				03 03 22					600

Spectr. Temp. ..... Dome Temp./Hum. 6.0°C ..... 53% Transparency Conditions .... V. Sl. Hazy .....

Focus ..... 6.7.7 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CLAMBOX

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
575	1-3"			CASS CCD	G 6020 1800	200	Hα	14c;	Hdy pgm		
								7c;			
								4c.		11 K max	
								11c;			
800	1"	= slit width						15c;	Hdy pgm	FRAME TAKEN on SLIT FA 500 X : R ~~1.35 AIRMASS~~	
110	<1"	V 12						16c;	" "	Ent companion	
630	1-2" →	V 8.39 8.77	F8					~~17c;~~			
660	2"-3'							17c;			
								~~15c;~~			
								4c;		11 K max	
735								~~18c;~~			
750	2'							~~8c;~~			
810	1-2'							19c;			
850											

107 pg #5

Date 1992 MAY 6/7 Observers [Hdg] ... T.n ...

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC06990	HD155937	17 09 30	+16 29	03 13 37					600
91	BIAS(4)								
92	FLAT							Twlt H-1/4	30s
93	Comp							Feat Clear	90s
94	HD155937	17 09 30	+16 29	03 29 03			repeat 4		600
95	— " —			39 18					"
96	— " —			49 33					"
97	— " —			59 49					"
98	BIAS(4)								
6999	Comp							Feat Clear	90s
7000	Flat							Twlt H-1/4	30
7001	HD177724	19 00 49	+13 43	04 21 05	04 33 40				
7002	"			04 24 31	04 28		CC07004 Comp	Feat Clear	90s
7003	BIAS(4)								
7005	FLAT							Twlt H-1/4	30s
7006 7007	DARKS x2			04 39 17					225

Spectr. Temp. ..... Dome Temp./Hum. 5.2°C 58.3% Transparency Conditions ... Fine ... 169

Focus ... 6.77 .....

Spectr. Temp. ..... Dome Temp./Hum. +5.3°C 58.5%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
830	1"					.200	Hα	19c;	Hdy pgm		
								4c;			
								20c;			
840								~~21c;~~	Hdy pgm		
800											
870											
900	1"							21c;			
										Cone T = +5.3°C	
								22c;			
								4c;			
35K		2.99	A					23c;	Telluric Std	6.0 Å max 1.155 Air Wvls	
41K								24c; 25c comp		125 max	
								~~25c;~~		13K MAX Exptd	
								~~26c;~~	225 sec Darks		
								~~27c;~~	"		

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pg#1

Emulsion Batches:
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Date 1992 MAY 7/8.... Observers [illegible] JH=Harlow... Fbr/Tn

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc07008 7009 7010	Focus Test previous morning (MAY 6/7)			04 49		0 0	+16°		
~~7011~~	~~Focus Test~~	Ind not written.							10/15s
7011	BIAS(4)								
7012	Comp							FeNe ?	20s
7013	HD124897	14 11 06	+19 42 30	20 17 20	2018	3 10 E			
7014 7015	Comps ↑↓							FeNe Clear	20s
7016	HD95735	10 57.9	+36 38	20 37 ~~44~~	20 51 09	00 35 W			
7017	Comp							FeNe Clear	20s
7018	BIAS(4)								
7019	Comp							FeNe Clear	20s
7020	DM+66 717	11 14 26	+66 23 24	21 09 53	21 ~~34 39~~	W			1435
7021	Comp							Fe Clear FeNe Clear	20s
7022	Comp								
7023	HD112956	12 55 17	+69 19	21 47 24	22 07 24				1200s
7024	Comp							FeNe Clear	

Spectr. Temp. ..... Dome Temp./Hum. +12.3°C 44% Transparency Conditions ... Fine .....

Focus ... 6.77 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... 90 CG4/m CCOT → -10.1°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	T= +5.0°C	Set 6.77			G=6020 1800 l/mm	200μ FULL	Hα	2 7ci 2 5ci	Focus	Right on at center	
	T= +12.0°C	6.77			G=4987 1800	250μ Long ext length	5140Å	3 ci 4 ci	"	v v s l Red	
							5140Å	~~1~~ ci			
								~~3 ci~~			
24K		0	K					4ci	stdvel	1.44 Airmass	
4200	2"	v 7.60	M6					3ci	KK pgm		
								5ci			
										Dome T = 10.7°C	
								5ci			
1030		v 9.32	M I V					6ci	KK pgm		700
1850	2"-3"	v 8.2	d 66					7ci	KK pgm		
~~1850~~								5ci			

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pg no 2

Thurs Fri

Date 1992 MAY 7/8 ..... Observers [K.K.] .... Fbr. Jr. .... JH

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC07025	Comp for HD 124752							FeNe Clear	20s
7026	BIAS(4)								
7027	HD 124752			22 19 48					1200s
7028	—"—	14 10 18	+68 03 00	22 41 58					1200s
7029	Comp								
7030	HD 124752 FAINT COMPANION	14 10 18	+68 03 00	23 10 11					1200 s
7031	Comp							FeNe Clear	20s
7032	Comp							"	"
7033	BIAS(4)								
7034	BD-15 4041	15 04 48	-15 53 00	23 54 57					1200
~~7035~~	Comp	not written		00 16 21				FeNe Clear	27s
~~7036~~ 7035	BD-15 4041	1504 48	-15 53 00	00 18 26					1572
~~7037~~ 7036	Comp CC07037							FeNe Clear	20s
~~7038~~ 7037	BD-15 4042	15 04 48	-15 59	00 47 14					
~~7039~~ 7038	Comp							FeNe Clear	20

Spectr. T
Focus...
Spectr. T
Exp Mtr

Spectr. Temp. ..... Dome Temp./Hum. .18.4°C...51.7% Transparency Conditions ...S.I. hazy.....112

Focus ..6:77.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G4983 1800	250u Longest Rectan	5140A				
1400	3"	Mag 9.6	KO					~~Set~~	KK pgm	Full comp scan + 5" NORTH rusty cosmic RA control	
								~~Set~~	"		
										Dome T = 8°C Hum = 53%	
28	2-3"	V 12						Sci		Faint/Comp	
								5ci			
										Dome T = 7.1°C	
285		V 9.82	KO VI		(darker slippel to 2nd longest Left there.	250cm		~~Sci~~	KK pgm	NORTH one	
260		9.02	KO VI					9ci	KK pgm	NORTH one again. hazy - thin cloud	
								5ci			
240	2-3"	V 9.43	KO VI					10ci	KK pgm		
								5ci			

113 pg #3

Date 1992 MAY 7/8 Observers [KH] F.br. T.m.

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc07040	Comp							FeNe Clear	20
7041	HD124897	14 11 06	+19 42	01 16 40	01 18	01 50W			
7042	Comp							FeNe Clear	20
7043	BIAS(4)								
7044	Comp							FeNe Clear	20
7045	HD144287	16 0000	+25 30	* 01 29					737s
7046	Comp							FeNe Clear	20
7047	Comp							"	"
7048	HD149162	16 27.9	+3 28	01 47	[illegible]	024W			1300s
7049	Comp							FeNe Clear	20s
7050	Comp							"	"
7051	HD161797A(C)	(1950) 17 44 30	(1950) 27 44 54	02 19 07					1500
7052	—"			02 45 02	03 10 03				1500
7053	Comp							FeNe Clear	20s
7054	HD161797A	(1950) 17 44 30	(1950) 27 44 54	03 14 12					102s

Spectr. Temp. ..... Dome Temp./Hum. 7.7°C ... 52.4% Transparency Conditions ... s/ hazy ... 114

Focus ... 6.77 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CL.HUMID

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
				CASS CCD	G 4983	2.5"	5140A	~~5~~			
75K							5c;	~~11~~	std vel	1.204 Airmass	
								~~11~~ 11c;			
								12c;	Comps		
2650	2"	V 7.07	G8V					13c;	KK	* Inertial Header Time was 01 28, 1 min behind. Clock Reset.	15 COMAX
850	2"-3"	V 8.84	K0V					14c;	KK pgm		
770										Pair is Barely Resolvable Dome T = 7.6° / Hum = 53%	
320									KK asks - were both components blocked?		
1757											

115 pg #4

Emulsion Batches: .....

Date 1992 May 7/8 Observers [KKJ Fbr/Tr .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCØ7055	Comp							FeNe Clear	20s
7056	"								
7057	BD+68 946	17 37 00	68 27 00	03 26 16					1258s
7058	Comp			03 47 54				FeNe Clear	20
7059	Bias (4)			03 48 40					
7060	Comp							FeNe Clear	20s
7061	HD124897	14 11 06	19 42 30	03 53 46	03 55 13				
7062	Comp							FeNe Clear	20s
7063	FLAT							Tung A=1/2	25s
7064	FLAT							Tung A=1/2	25s
7065	FLAT							Tung A=1/2	25s
7066	FLAT							Tung A=1/2	25s
7067	FLAT							Tung A=1/2	25s
7068	FLAT							Tung A=1/2	25s

* Note CCD7046 to CCD7062 inclusive were written to Parsec and Worm with incorrect headers (Hi-Res - end of File 024) this must be changed before data analysis is possible.

KH. 26/06/92

Spectr. Temp. ..... Dome Temp./Hum. 7.3°C/..53.0% Transparency Conditions .... CLEAR..w/.HAZE 116

Focus ... 6.7.7 .....

Spectr. Temp. ..... Dome Temp./Hum. 7.2°C 55.3%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1400	3"	V 9.22	M 5	CASS CCD	1800 a=4983	250 μ			KK Pgm	Dome T = 7.3°C Humidity = 54%	
										BEGINNING TO CLOUD IN.	
11,075									Std Vel	2.02 AIR MASS + Cloud	
					All to	Porseus & WORM					

117

1992

Date May 9/10 Observers Hdy / Fbr

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
cc07069.fits	BIAS(4)			00 10 12					
7070	SKY ~~FLAT~~			01 54 47					1200
7071	FLAT			02 24 40				Tung A=1/4	33
7072	COMP			02 24 40				GeAr A=Clear	90
7073	BIAS(4)			02 28 41					

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
								3ci		Profile fine	
								6ci		Screwed-up Profile	
4554								7ci			

119[89]

Date May 10/11 Observers (KK) Hlw/Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC07074	Bias (4)								
7075	Comp							FeNe	20 sec
7076	HD 124897	14 11 06	19 42 30	23 11 26	11 28	0 10 E			6000
7077	Comp							FeNe	20 sec
7078	Comp							FeNe	20 sec
7079	HD 95735	10 57 54	36 38 00	23 41 14		3:42:46 W			305s
7080	Comp							FeNe	20 sec
7081	Comp							FeNe	20 sec
7082	HD 124752	14 10 18	68 03 00	00 38 55		1:34:30			5 16 sec
7083	Comp							FeNe	20 sec
7084	Bias (4)								
7085	HD 124752 fa.st companion	14 10 18	68 03 00	00 52 35	01:52:35	2:39:40			1 hr
7086	Comp							FeNe	20 sec
7087	Comp							"	"
7088	HD 161797A	17 42 31	27 46 06	02:18:01					63 sec

Spectr. Temp. ..... Dome Temp./Hum. 16.5°C/58% Transparency Conditions ... Fine ... 120

Focus ... 6.77 ... comparisons weak!

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
							5140Å	1ci			
								3ci			
6000		O	K					4ci	St. Vel.		
								3ci			
								3ci			
2500	2"	7.6	M6					5ci	KK Prg.	REDID DUE TO FORMAT CORRECTION	
								3ci			
								3ci			
	1.5"	8.2	KO					6ci	KK Prg.		
								3ci			
								1ci	KK Prg.	Companion nicely separate from star 15.5°C	
323		12	M?					6ci			
								3ci			
								3ci			
15000								7ci	kk Prg		

121 pg 2

[KK]

Date May 10/11 Observers HIW / Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
7089	Comp.							FeNe	20 sec
7090	Bias (4)								
7091	Comp							FeNe	20 sec
7092	HD 187691	19:46:15	10:09:54	2:33:50		-2:10			20 sec
7093	Comp							FeNe	20 sec
7094	Comp							"	"
~~7095~~	~~HD188512~~	~~19:50:24~~	~~6:09.0~~						
7095	Comp							FeNe	20 sec
7096	HD197076	20:36:14	19:34.6 decimal	3:44:15		-1:50			30 sec
7097	Comp							FeNe	20 sec
7098	HD197076 faint companion.	20.36:14	19:34.36	3:53:44	4:04.	-1:37			60 sec
7099	Comp							FeNe	20 sec
7100	Bias (4)								
7101	Flat							A = 1/4	33 sec
7102	Flat							A = 1/4	33 sec

Spectr. Temp. ..... Dome Temp./Hum. 15.1°C 63% Transparency Conditions ..... Okay 122

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
								3ci			
								1ci			
								3ci			
6300	-2"	5.2	F8					8ci	KK Prog	Temp = 14°C Humid 66%	
								3ci			
								3ci			
		3.7								Botched	
								3ci			
10,000		6.4	G2					9ci	KK Prog	Spectrum looks flat. wrong star?	
								3ci			
								10ci		Sunrise [lots of sky]	
								3ci	KK Program		
								1ci			
0 000											
0 000											

123 pg 3 the end

Date May 10/11 Observers Hlw / Fbr

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
7103	Flat							A = ¼	33 sec
7104	Flat							A = ¼	33 s
7105	Flat							A = ¼	33 s
7106	Flat							A = ¼	33 s

Spectr. Temp. ..... Dome Temp./Hum. 14.0°C/67% Transparency Conditions Okay 124

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
~~10000~~											
~~10100~~											
~~10000~~											
~~10000~~											

125

Date ..May.11/12-97... Observers ....Bln../F.Br./SC.:

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc0 7107	Focus (Comp)								
cc0 7108	Focus (Stell)								
7109	Bias (4)								
7110	Comp							FeAr Clear	90s
~~7111~~	~~HD112028~~	~~12 40 23~~	~~85 56 00~~	~~20 53 25~~	~~21 20~~				~~2000~~
~~7111~~	~~HD112028~~	~~12 40 23~~	~~85 56 00~~	NO WRITE - TOO MANY PROBS!					
7112	HD149757	22 42 51	-10 22 00				7111 Comp FeAr	FeAr Clear	25 1s
7113	Comp							FeAr Clear	90 s
7114	Bias (4)								
7115	HD149757	16 31 39	-10 22	22 59 16					1141 s
7116	Comp							FeAr Clear	90s.
7117	HD149757	16 31 39	-10 22	23 24 59					108 4s
7118	Comp							FeAr Clear	90s
7119	HD149757	16 31 39	-10 22	23 50 31					1100s
7120	Comp.							FeAr Clear	90s.

Spectr. Temp. ..... Dome Temp./Hum. 17.9°C/52.3% Transparency Conditions ..... CLEAR 126

Focus ....6.7.7.....

Spectr. Temp. ..... Dome Temp./Hum. .....

CCD T = −100.4°C

600 l/mm 480 0 50 1024 41

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CSSS CCD	600 lu	100 μ				480 0 40 1024 41	
										480 0 40 1024 41	
			Lu notes	—	no good for		HO149757			480 0 50 1024 41.	
				—	there is a file		cc07111.fts, which is			good for HO149757	
									λ=4300Å		
20,000		2.56	09.55				a=2630		Bln Pam	Dome T = 14.8°C Hum = 62.2%	
								4ci			
								1ci			
100,000	3"							3ci	Bln Pam	Airmass = 1.938 13,000 Adu MAX	
								4ci			
100,000								5ci	Bln Pam	ENCODERS	
								4ci		NOT	
100,000	6"							6ci	Bln Pam	WORKING	
								4ci			

127
#2

Emulsion Batches:
.....
.....

Date ..MAY..11/12-92.... Observers ....Bl.n./.Fbr./.SG.....

ENCODERS NOT WORKING!

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc∅7121	HD 149757	16 31 39	-10 22	00 21 26					1100
7122	Comp							FeAr Clear	90s
7123	Bias (4)								
7124	HD149757	16 31 39	-10 22	00 45 55	00 03 00				1025
7125	Comp							FeAr Clear	90s
7126	HD 149757	16 31 39	-10 22	01 11 51					413s
7127	Comp							FeAr Clear	90s
7128	Bias (4)								
7129	HD 149757	16 31 39	-10 22	01 32 24					864s
7130	Comp							FeAr Clear	90s
7131	HD 149757	16 31 39	-10 22	01 51 47					850s
7132	Comp							FeAr Clear	90s
7133	HD 149757	16 31 39	-10 22	02 13 20	02 29 57			[illegible]	[illegible]
7134	Comp							FeAr Clear	90s
7135	Bias (4)								

Spectr. Temp. ..... Dome Temp./Hum. . 14.0°C / 66.2% Transparency Conditions ..... Clear .....

Focus ..... 6.77 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

480 0 50 1024 4 1 ccdfmt

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
100,000		2.56	0 9.35	CASS CCD	600 ln/mm c=2630	200 μ	λ=4300Å	7ci	Bln Pgm.		
								4ci		11,000 max adu.	
								1ci		Airmass = 1.7509.	
100,000		2.56	0 9.35	CASS CCD				8ci	Bln Pgm	Dome T=13.4°C Humidity = 66.4%	
								4ci			
100,000		2.56	0 9.35				λ=4300Å	9ci	Bln Pgm	10,00 Adu Max	
								4ci			
								1ci			
100,000		2.56	0 9.35					10ci	Bln Pgm	Dom T=13.8° Hum = 65-67% 11,000 Adu max	
								4ci			
100,000		2.56	0 9.35					11ci	Bln Pgm	12,400 Adu max Airmass = 1.7261	
								4ci			
100,000	6"							12ci	Bln Pgm		

129
#3

Emulsion Batches: .....

Date . MAY. 11/12-92.... Observers ...Bln/Fbr/..... .....

.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc∅7136	HD149757	16 31 39	-10 22	02 36 51					794s
7137	Comp							FeAr Clear	90s
7138	HD149757	16 31 39	-10 22	02 55 35	03 11				944s
7139	Comp							FeAr clear	90s
7140	BIAS(4)								
7141	HD149757	16 31 39	-10 22	03 21 24					1179s
7142	Comp							FeAr clear	90s
7143	HD149757	16 31 39	-10 22	03 44 59					1355s
7144	Comp							FeAr clear.	90s
7145	BIAS (4)								
7146 } 7165 }	FLAT X20							Tung s=1M	130s

Spectr. Temp. ..... Dome Temp./Hum. ...13.3°C/64.6% Transparency Conditions .. A. BEAUTY! 130

Focus .....6.77.....

Spectr. Temp. ..... Dome Temp./Hum. ..... 480 0 50 1024 4 1 ccdfmt

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
100,000		2.56	0 9.35	CASS CCD	600h/mm α=2630	200 μ		13c2	λ=4300 Å	Bln Program 13,000 max ADU.	
100,000								14c1	Bln Program	Dome T=13.2°C Hum = 64% / 12500	ADU max
100,000								[redacted]		12400 max ADU.	
										11,000 Max Adu	
100,000									Bln Pgm.		
										11,000+ Adu max	
					All to Peacock; WORM						

131

Date . MAY 12/13-92 .... Observers .... Bl. / F. Or. .....

Emulsion Batches:
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.....
.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
~~7166~~	FOCUS								
7167	FOCUS.								
7168	BIAS (4)								
7169	TEST FLAT								
7170	TEST FLAT								
7171	FOCUS TEST								
7172	FOCUS TEST								
				TO PERSEUS AND WORM					

Spectr. Temp. ..... Dome Temp./Hum. 1.9°C / 59.9% Transparency Conditions ..... Clear / Quite Hazy

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				COSS CCD	1800	200 μ			Bln	λ_c = 4480 Å	

133 pg #1

1992

Date MAY 14/15 Observers Hdy./F.br

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr
~~7173~~	BIAS (4)									
7174	FLAT							Tung A=1/4	35 sec	
7175	COMP							FeAr Clear	90 sec	
7176	HD 155937	17h 09m.5	+16° 29′	00 32 33					600 sec	320
7177	"			00 46 42					"	320
7178	"			00 57 04					"	290
7179	"			01 07 27					"	260
7180	"			01 17 49					"	233
7181	"			01 28 12	01 38 12				"	250
7182	BIAS (4)			01 39 07						
7183	COMP							FeAr Clear	90 sec	
7184	FLAT							Tung A=1/4	35 sec	
7185	HD 155937			01 45 46					600 sec	290
7186				56 09						320
7187				~~01 07~~						334

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions Clear

Focus 6.70 FANS OFF

Spectr. Temp. ..... Dome Temp./Hum. ..... 480 0 100 1024 21 ccd fint

2x1 binning used due to poor illumination by screen

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					1800 l/mm G=6020						
					6563 Å			3ci		11,8 AV MAY	
14594								4c;			
320	5"							5c;			
320	4"							—			
290	6"										
260	4"							—		tertiary seen occasionally	
233	4-10"							—		smoke smelled in dome	
250	4-5"							5ci		tertiary seen dome in way of end	
								4ci			
								3ci			
290								6ci			
320	3-4"									tertiary seen	
334											

135 pg #2

Emulsion Batches: .....

Date . May 14/15 ..... Observers . Hdy. / Fbr .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
7188	HD155937			02 16 54						305
7189	"			02 27 17						414
7190	"			02 37 39	02 47 39					412
7191	BIAS (4)			02 48 20						
7192	FLAT							Tung A=174	35 sec	
7193	COMP							FeAr Clear	90 sec	
7194	HD 155937			02 55 34					600 sec	435
7195	"			03 05 57					"	446
7196	"			03 16 20					"	470
7197	"			03 26 40						53
7198	"			03 37 00						528
7199	"			03 47 20	03 57 20					542
7200	BIAS (4)			03 58						
7201	COMP							FeAr Clear	90 sec	7??
7202	FLAT							Tung A=174	37 sec	

Spectr. Temp. ..... Dome Temp./Hum. ....7.2°C/54.5% Transparency Conditions ....CLEAR..... 136

Focus .....6.70.....

Spectr. Temp. ..... Dome Temp./Hum. .....

$T_{CCD} = -101.8$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
365											
414											
412				3"				6ci		tertiary seen	
										11,5 K ADU MAX	
435				3"				7ci		tertiary seen	
466											
490											
513											
528				<3"						tertiary seen easily, not contaminating	
547				"				7ci		"	
15994											
										10.9 K ADU MAX	

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Date 1992 May 14/15 Observers Hdy/Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
7203	FLAT							Tung A=1/4	37sec
7204	COMP							FeAr Clear	90sec
7205	HD 177724			04 12 41					34sec
7206	HD 177724			04 14 40					180sec
7207	Comp							FeAr Clear	90sec
7208	FLAT							Tung A=1/4	37sec
7209	SKY			04 25 47		$0^h 00^m$	$+13^\circ 53'$		
7210	SKY			04 41 36		$0^h 00^m$	$+13^\circ 53'$		505sec
7211	BIAS (4)			-					

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .....

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
										12.4 ADU MAX	
15799											
5000								8c;		> TELLURIC STD.	
25100								8c;			
15707								4c;			
								3c;		12.4 ADU MAX	
51000								9c;		715 ADU DRIVE OFF	
150 000								9c;		2252 ADU SOME THIN CLOUD	

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pg. 1

Fri. Sat

Date 1977 MAY 15/16 Observers Holy T.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCC 7212 CCC 7213	Focus Test							30/45	
CCC7214	BIAS(7) when on Regulus								
7215	FLAT							Tung A=1/4	19 sec
7216	COMP							FeAr Clear	45 sec
7217	HD87901	10 03 03	+12 27	21 01 26					26 sec
7218	"			21 03 10					37 sec
7219	BIAS(4)								
7220	FLAT when on HD155937							Tung A=1/4	19 sec
7221	COMP							FeAr Clear	45 sec
7222	HD 155937	17h 09m5	+16° 29'	21 16 28					600 sec
7223	"			21 26 43					"
7224	"			21 36 58					"
7225	"			21 47 13		03 57E			"
7226	"			21 57 28					"
7227	"			22 07 43	22 17 43				"

Spectr. T
Focus...
Spectr. T

Exp Mtr.
T: 24
21000
30000
425
450
487
492
494
530

Spectr. Temp. ..... Dome Temp./Hum. +14°C 44% Transparency Conditions ... Fine ... some small clouds

Focus ... 6.85 → 6.65 ... FANS OFF

Spectr. Temp. Final .. Set 6.70 Dome Temp./Hum. ..... CHAMBER

480 0 50 1024 4 1 ccdfmt

140

90 CGain

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
T = 14°	Set =	6.65		CASS CCD	G = 600 1800 l/mm	200μ Full	6563 Å	3c; 4c;	679 665 spot	(Stellopes pixel blue)	
								5c;		13.6 - 13.9 K Ar/Ne max	
								6c;			
21000										14.9 K trailed	
30000										11.2 K trailed more	
										10.8 K	
1420	2-3"	8.29 → 8.77	F8					8c;	Hdy	AK Her X = 2.25 tertiary seen easily, no contamination	
460											
487											
492											
494											
530										X = 1.6	

141
pg. 2

Date 1992 MAY 15/16 Observers Hdy/Tn

Emulsion Batches:
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.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
7228	BIAS(4)									
7229	COMP			22 20 35				FeAr Clear	45sec	
7230	FLAT							Tung A=1/4	19sec	
7231	HD 155937	17 0930	+16 29	22 29 50					600sec	655
7232	"			22 40 08					"	690
7233	"			22 50 27					"	740
7234	"			23 00 46					"	870
7235	"			23 11 06					"	915
7236	"			23 21 24					"	970
7237	BIAS(4)									
7238	FLAT							Tung A=1/4	19 sec	
7239	COMP							FeAr Clear	45sec	(760)
7240	HD155937	17 0930	+16 29	23 3555					600	815
7241	"			234612		0158E			"	930
7242	"			23 56 31					"	1030

Spectr. Temp. ..... Dome Temp./Hum. +13.0°C ..... 47.8% Transparency Conditions ..Fine ..s/haze 142

Focus .....6.70.....

Spectr. Temp. ..... Dome Temp./Hum. ..... CLAMBDA

$T_{CCD} = -101.65\,°C$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G=6020 1800 l/mm	200 Full	6563Å				
								6 ci			
								5 ci		12.4 K	
655		8.29 – 8.77	F8					9 ci	Hdg pgm		
680											
790										seems to be coming out of eclipse	
870	2"										
915											
970											
								9 ci			
								5 ci		13 K	
(6760)								6 ci			
865								10 ci			
920											
1030	1"-2"										

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Emulsion Batches:

Date 1992 MAY 15/16 Observers Hdq. T.H.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.
CC07243	HD155937	170930	+16 29	00 0650		01 38E				1150
7244	"			00 1709						1065
7245	"			00 2728						1035
7246	BIAS(4)							~~TUNG~~ A=1/4		
7247	COMP ~~FLAT~~							FeAr Clear	45s	1300
7248	~~HD155937~~			~~00 42~~				TUNG A=1/4	19s	
7249	HD155937			00 4256						995
7250	"			00 53 16						1016
7251	"			01 03 35						983
7252				01 13 54						945
7253				01 24 13						920
7254				01 34 32						905
7255	BIAS(4)									
7256	FLAT			01 46 21				TUNG A=1/4	18s	
7257	COMP							FeAr Clear	45s	7346

Spectr. Temp. ..... Dome Temp./Hum. +12.5°C 49.5% Transparency Conditions ... Clear ... 744
sl. haze around moon

Focus ... 6.70 ...

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1100	1"	8.39 -8.77	F8	CASS CCD	1800	200µ FULL	6563Å	10ci	Hdy pgm	4th of Sept SSTAR.BAT 6	
1065											
1035	1"									AIR MASS 1.75 end	
~6800								6ci			
								5ci		15,287 MAX	
995								~~HCT~~			
1016	1-2"										
983											
945	2-3"										
920											
905								11ci			
										14425 ADU MAX	
7546											

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Date 1992 MAY 15/16 Observers Hdy Tn

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
7258	HD 155937			01 49 17					600sec	795
7259				01 59 36						783
7260				02 09 56						723
7261				02 20 15						675
7262				02 30 34						690
7263				02 40 53	02 50 53					735
7264	BIAS(4)									
7265	COMP			02 52 27				FeAr Clear	45sec	770
7266	FLAT							Tung A=1/4	18sec	
7267	HD 155937			02 5523	0305 23				600sec	690
7268	"			03 07 11					600 sec	565
7269	"			03 17 30						
7270	"			03 28 08					600sec	582
7271	"			03 38 27						575
7272	"			03 48 46						580

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions Clear 146

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
795								~~12c;~~			
783											
723	2"										
675											
690											
735								12c;			
(770)								6c;			
								5c;		13107 ADU	
690	1.5-2.5"							13c;			
565	2-3"							~~14c;~~			
~~580~~ 580											
582	3"										
575	3-4"									tertiary sometimes not visible	
580								14c;			

v147 p.5

Date 1992 MAY 15/16 Observers Hdy / Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
7273	BIAS(4)								
7274	FLAT							Tung A=1/4	18sec
7275	COMP FOR AM Her			04 01 20				FeAr Clear	45sec
7276	COMP FOR 3 Aur	~~19 00 49~~	~~+13 43~~					FeAr Clear	45sec
7277	HD 177724	19 0049	+13 43						
7278	HD 177724								
7279	FLAT FOR 3 Aur							Tung A=1/4	18sec
7280	COMP FOR Nova Cyg	~~20 27 43~~	~~52 17 39~~					FeAr Clear	45sec
7281	Nova Cyg	20 27 43	52 1739	04 22 32					128sec
7282	COMP							FeAr Clear	45sec
7283	FLAT							Tung A=1/4	18 sec
7284	BIAS(4)								
7285	DARK DO NOT USE, WRONG T_{CCD}			04 3153					225sec
cc07286.Pts	DARK			04 4652					225sec

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions Clear, Twilight 148

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. 11°C 54% $T_{CCD} = -101.75$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
								5ci		12154 ADU MAX	
								6ci			
								6ci			
17200								19ci			
38000											
								5ci		13572 ADU	
								6ci		[illegible]	
1800 MOSTLY SKY								16ci		6766 ADU	
(5958)								6ci			
								5ci		13862 ADU MAX	
								1ci			
								17ci		shutter opened and twilight (not dark at beginning)	
								17ci		DARK T=-100.8	
				All to Persaks & WORM							

149

pg #1 Mon / Tues

Date 1992 MAY 18/19 Observers [Rm] Jn Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
CCD 7287	BIAS(4)									
7288 7289	Focus Test									
7290	~~Comp~~ BIAS(4)									
7291	Comp							FeAr Clear	45s	
7292	HD124897	14 1106	+19 4230	20 2930					27sec	21K
7293	Comp							FeAr Clear	45sec	
7294	Comp							"	"	
7295	HD62509	07 39.2	+28 16	20 4552		04 33W			4 sec	20K
7296	Comp							FeAr Clear	45sec	
7297 → 7299	FLATS x3							TUNG H=1/4	18s	
7300	Comp for Regulus							FeAr Clear	45sec	
7301	HD87901	10 03 03	+12 27	21 1711					66s	33K
7302	Comp							FeAr Clear	45s	
7303	HD87901	"	"	21 2541					89s	53K
7304	Comp							FeAr Clear	45s	
7										

Spectr. Temp. ..... Dome Temp./Hum. +14.2°C 57% Transparency Conditions ..FINE.....

Focus ..6:70.....

Spectr. Temp. ..... Dome Temp./Hum. ..... 90 C GAIN

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASSCCD 1800 l/mm	G=5930 645	200u FULL	6450Å			480 0 50 1024 4 1 CCDFAINT	
	Set 670 T= +14.0°C									360 0 10 1024 40 1 CCDFAINT	
										480 0 50 1024 4 1 CCDFAINT	
								3c1			
21K		V						5c;	Std Vel	MAX 7200 ADU	
								3c;			
								3c;	~~Std Vel~~		
20K		V 1.14	Krom					~~5c;~~	Std Vel	6700 ADU MAX 1.78 AIR MASS	
								3c;			
								4c;		10K MAX ADU	
35K								~~6c;~~	Telluric Std	6400 MAX ADU	
52K								6c;	Telluric Std (Stronger)	7800 ADU	

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Emulsion Batches: .....

Date .19.92. MAY. 18/19. Observers .[Rm]..Jm..F.br..... .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD7305	BIAS(4)								
7306	Comp							FeAr Clear	45s
7307	HD ~~176896~~ ~~HD 161896~~	~~17 38.5~~ ~~16 28.5~~	~~+04 37~~ ~~+25 25~~	21 45 48		04 26 E			126s
7308	Comp							FeAr Clear	45s
7309 7311	FLATS x 3	at HD161896 posn						TUNG A=1/4	18s
7312	Comp							FeAr Clear	45s
7313	NOVA Cyg 92			22 08 53		6 33 W			971
7314	Nova Cyg 92			22 26 34		6 10 W			1340
7315	Comp							FeAr Clear	45s
7316	Comp							FeAr Clear	45s
7317	HD203156	21 15 23	37 49 00	23 00 21		06 28 E			
7318	Comp							FeAr Clear	45s
7319	Comp							"	"
7320	HD 198726	20 47 13	+27 52 30	23 28 57	23	E			
7321	Comp							FeAr Clear	45s

Spectr. Temp. ..... Dome Temp./Hum. +11.8°C 58% Transparency Conditions ... s/ hazy ... 152

Focus ... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... ℓ LAMBDA 90 CGAIN CCDT -> -100℃

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G= 5930 1800 l/mm	200μ FULL	6450Å				
≈10000	3"	2.77 ✓	K2III					7ci	Std vel	5 KMAX ADU Airmass 3.01	
								4ci		9K MAX ADU	
1000								8ci	Nova 92 Pgm	12,500 MAX ADU	
1380								9ci	NovaCva92	TOP OF H_α HITS SATURATION	
5000	4"	5.89 ✓	G0I6					10ci	Rm Pgm	HR8157 2700 MAX ADU	
9000 (2-3")		5.75 ✓	G0IA					~~11ci~~	Rm pgm	T Vul	

153 Pg #3

Date 1992 MAY 18/19 Observers [Rn] Fdr Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
cc07322	BIAS(4)									
7323	Comp	* coords 1900 calc from Rel to HD 214975 encoder offset						FeAr Clear	45s	
7324	Unknown	22 36 22	+56 16 14	00 03 35	00 18	06 53E			890	78
7325	Comp							FeAr Clear	45s	
7326	HD214975	22 36 55	+56 18 24	00 25 39	01 02 30	06 07E			2208	2340
7327	Comp							FeAr Clear	45s	
7328	BIAS(4)									
7329	Comp							FeAr Clear	45s	
7330	HD162714	17 47 17	+06 07 12	01 19 21		00 42E			1200	1380
7331	Comp							FeAr Clear	45s	
7332	Comp							FeAr Clear	45s	
7333	HD161096	17 38 5	+04 37	01 46 15		00 24E			98	114
7334	Comp							"	45s	
7335	Comp							"	"	
7336	HD173297	18 39 20	-20 45	01 58 37		E			1600	1400
								"	"	

Spectr. Temp. ..... Dome Temp./Hum. +11.8°C 51% Transparency Conditions .. Sl. Hazy 154

Focus ... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

90 CG/Min CCD T = -101°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G5930 1800	200μ Full	6450Å				
78								11ci	WRang Stag ~~Rm pgm~~	TO SW of HD214975	
2340	2"	V 8.40	GOIb					12ci	Rm pgm	≈ 6 ½ ADU Sum Avg o bar	b tgt
										Dome T = +10.7°C	
9800	2"-4"	V 6.15	GOIb					13ci	Rm pgm	1.31 Airmass ≈ 20° N of Full Moon	
14K		V 2.77	K2III					14ci	st/vel	8700 MAX	
										5600 ADU Sum of 7 obs.	
9400	3"	V 7.48	GOIb					15ci	Rm pgm	≈ 20° E of moon	

155 pg#4 Mon/Tues

Date 1992 MAY 13/14 Observers [Rm] ... Tm ... Fbt ...

Emulsion Batches: .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC07337	Comp for	HD173297						FeAr Clear	45s
7338	Comp							"	"
7339	HD3712	00 34.8	+55 59	023707		0631E			61sec
7341	Comp written out of ORDER							FeAr Clear	45sec
7340, 7342, 7343	FLATS x3	at HD3712 posn						TUNG A=1/4	185sec
7344	Comp at	Posn of	HD171232 - But not observed after All.					FeAr Clear	45sec
7345	BIAS (4)								
			No seeing test due to mkIII problems					etc	etc
			Someone keeps leaving mkIII spect in "F" mode.						

Spectr. Temp. ..... Dome Temp./Hum. +9.7°C 59.2% Transparency Conditions .. Sl. hazy .....

Focus .... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CLAMBDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G 5930 1800l/mm	200μ	6450Å	3ci			
15k		2.23 ✓	KOII					16ci	Stalled	11k max	
								4ci		9k ADU max	
										Dome T = +9.8°C	
				Note All comps & Flats done after 1st Homing Rock Before going to "31750" comp posn. Just on offside chance that it matters as far as grating illumination.							

157

Emulsion Batches:

Date .. May. 19/20..... Observers .....Fbr.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc07346	Focus (COMP)								
7347	Focus (STSL)								
7348	Bias (4)								
7349	Comp							FeAr Clear	45s
~~7350~~	~~HD124897~~	~~14 11 06~~	~~19 42 30~~	~~20 59 02~~	~~20 59 19~~	~~1 41 E~~			~~45s~~
7350	HD124897	14 11 06	19 42 30	20 02 03	21 02 07	1 37 E			45
7351	Comp							FeAr Clear	45s
7352	Flat							Tung A=1/4	1Bs
7353	Flat							"	"
7354	Flat							"	"
7355	Comp (Reavis)							FeAr Clear	45s
7356	HD87901	10 03 03	+12 27	21 37 14	21 37 44				
7357	Comp							FeAr Clear	45s

Spectr. Temp. ..... Dome Temp./Hum. . . 14.9°C / 36.8% Transparency Conditions ..... CLEAR ..... 158.

Focus ..... 6.7.0 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... 480 0 50 1024 4 1 ccdfmt

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					1800 a=6020	200μ	Hα			1 pixel shift in stellar ∴ O.K.	
								3c i			
8.5K								4c i	STD. VEL.	15K MAX AOM	
										12.5K MAX AOM	
								6c i	TELLURIC STD.	8K MAX AOM	

All to Persons and CCRM.

159
#1.

Emulsion Batches:
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Date . May 20/21 ..... Observers . Bt./Fbr .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC 7358	Biss (4)								
7359	Comp							FeAr Clear	200s
7360	HD87901	10 03 03	+ 12 27	20 50 17	20 50 57				80s
7361	HD87901 Comp	10 03 03	12 27	20 56 52				[illegible]	107s
7362	Comp							FeAr Clear	200s
7363	FLAT							Tung Clear	50s
7364	FLAT								
7365	FLAT								
7366	Comp							FeAr Clear	200s
7367	HD113226	12 57 12	11 30 00	21 35 48					1259s
7368	Comp							FeAr Clear	200s
7369	FLAT							Tung Clear	50s
7370	FLAT							Tung Clear	50s
7371	FLAT							Tung Clear	50s
7372	Biss (4)								

Spectr. Temp. ..... Dome Temp./Hum. 17.2°c / 64.6% Transparency Conditions ..... CLEAR .....

Focus .... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

gain ?

480 0 50 1024 4 1 ccdfmt

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	ℓ=4430 1800	200 μ			λ=4300Å		
20 K		✓ 1.35	B7 V					4ci			
55 K										10 K MAX AON	
								5ci		11 K MAX AON	
100 K.		✓ 2.83	A9IIIab					6ci		10K MAX AON.	
								5ci			
								5ci			
								5ci			

161 pg #2.

Date .. May 20/21 ..... Observers ..... Bt/Fbr .....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.
CC 7373	Comp							FeSr Clear	200s	
7374	HO140573	15 39 18	06 44 00	22 21 43					509s	10c K
7375	Comp							FeSr Clear	200s	
7376	Flat							Tung Clear	50s	
7377	Flat							Tung Clear	50s	
7378	Flat							Tung Clear	50s	
7379	Bias (4)									
7380	Comp							FeSr Clear	200s	
7381	HO153210	16 52 54	+09 32	22 55 09	11 09 55				877	10,000
7382	Comp							FeSr Clear	200s	
7383 → 7385	Flat x 3							Tung Clear	50s	
7386	Bias (4)									
7387	Comp							FeSr Clear	200s	
7388	HO159561	17 30 18	12 38	23 33 54					1925	37K
7389	Comp							FeSr Clear	200s	

Spectr. Temp. ..... Dome Temp./Hum. 16.5°/6.6.2% Transparency Conditions ..... CLEAR 162

Focus ..... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS-CCD	1800 α=4430	200 μ			λ=4300 Å		
100 K.	1"-2"	V 2.65	K2 IIIb					7ci		10K max non .	
100,000		V 3.20	K2 III					8ci		7.5K non max	
7K .		V 2.00	A5V							max is saturated 15K max.	

163
#3

Date ... May. 20/21. -92. Observers ... Bt / Fbr .....

Emulsion Batches:
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Spectr. Temp
Focus.....
Spectr. Tem

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mir
7390	FLAT							Tung Clear	50s	
7391	FLAT							"	"	
7392	FLAT							"	"	
7393-96	BIAS (4) x4									

Spectr. Temp. ..... Dome Temp./Hum. 16.2°C/.66% Transparency Conditions ..... CLEAR .....

Focus ..... 6.70 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				eASS CCD	1800 c = 9430	200 μ					

All to Rosa: WORK.

165

#1. Thurs Fri

Date May 21/22-92 Observers W×L/Tn/Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc07397	Bias (4)								
7398	Comp							FeAr clear	60
7399	HD102870	11 45 29	+02 20	20 25 42		00 19 W			89
7400	"	"	"	20 27 14		00 22 W			102
7401	Comp							FeAr clear	60s
7402	Comp	"						"	4
7403	AH VIR	12 09 15	+12 22 37	20 37 58					500
7404	— " —			20 56 51		00 35 W			600
7405	Comp							FeAr clear	60s
7406	AH VIR	12 09 15	+12 22 37	21 11 05					560s
7407	AH VIR	12 09 15	+12 22 37	21 21 25	21 31 25				600
7408	Comp							FeAr clear	60s
7409	Bias (4)								
7410	AH VIR	12 09 15	+12 22 37	21 36 00	21 46				600s
7411	AH VIR	12 09 15	+12 22 37	21 46 42	21 56 44				600s

Spectr. Temp. ..... Dome Temp./Hum. 20.6°C / 31.4% Transparency Conditions ..... CLEAR .....

Focus ..... ~~6.70~~ 6.63 ...

Spectr. Temp. ..... Dome Temp./Hum. ..... 90 CCD Min CCD T = -101.7°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 a=4900	200μ Full length	5010Å		λ_c = 5010Å	480 050 1024 4 1	
								3ci			
10K		V 3.61	F9V					~~4ci~~	Stdvel	1.35 AIRMASS	
7400 cnts		"	"					4ci	"		
400	3"		KO					5ci	Ecl Bin	ie 400 #0's above bkgnd. 1600 photons sum total of 3 cols	
~~4000~~			"					6ci			
500		V 9.3	KO					6ci		NOTE * HEADERS DEC IN 2000 epoch.	
472		V 9.3	KO					6ci			
448		V 9.3	KO					6ci		400 ADU MAX ADV. BKG.	
388		V 9.3	KO								

167 pg#2

Date ..May. 21/22.-92. Observers .WxL/Tn/For.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
07412	Comp							FeSr Clear	60s	
07413	AH Vir	12 09 15	+12 22 37	22 01 17	22 11 17				600s	407
7414	AH Vir	12 09 15	+12 22 37	22 11 34	22 21 34				600s	366
7415	Comp							FeSr Clear		
7416	AH Vir	12 09 15	+12 22 37	22 26 19	22 36 19				600s	368
7417	AH Vir	120915	+12 22 37	223653	22 46 53				600s	363
7418	Comp							FeSr Clear	60s	
7419	Bias (4)									
7420 7422	Flat x3							Tung Clear	10s	
7423	Comp							FeSr Clear	60s	
7424	EF Dra	18 06 31	69 44 24	2303 17		0300E			~~1206~~	390
7425	EF Dra	18 06 31	69 4424	2324 13					1200s	388
7426	Comp							FeSr Clear	60s	184
7427	EF Dra	18 06 31	69 4424	234735					~~1200~~ ~~600~~	
7428	EF Dra	18 06 31	69 4424	00 0753		155 E			~~1203~~ ~~600~~	383

Spectr. Temp. ..... Dome Temp./Hum. 19°C / 32.9% Transparency Conditions ..... CLEAR 168

Focus ..... 6.63 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CLAMBDA 480 0 50 1024 4 1 ccdfont

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
				CASS CCD	1800 c=4900	200 μ	5010Å	6ci	λ_c=5010Å		
407	2"	↓ 9.3	KO						WxL pgm	400 ADU MAX ABOVE BKG.	
366										400 ADU MAX.	
368		↓ 9.3	KO					6ci	WxL Pgm	300 ADU MAX	
363		↓ 9.3	KO					6ci	WxL Pgm	340 ADU MAX.	
										pixel 144 (last)	
								7ci		4980Å — broad feature.	
200	2"	↓ 10.5	F9					8ci	WxL pgm		
200		↓ 10.5	F9					9ci	WxL pgm		
189											
↓	2"-3"							10ci			
223											

169

#3

Emulsion Batches: .....

Date ... May 21/22 92 Observers ... WxL/...Tn/...FDr .....

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Spectr. Ter
Focus....
Spectr. Ter

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr
cc 7429	Comp							FeAr Clear	60s	
7430	Bias(4)									
7431	EF Dra	18 06 31	69 44 24	00 33 55					1200s	243
7432	EF Dra	18 06 31	69 44 24	00 54 24					1200	248
7433	Comp			~~01 18 24~~				FeAr clear	60s	
7434	EF Dra	18 06 31	69 44 24	01 18 24					1200	246
7435	EF Dra	18 06 31	69 44 24	01 38 35					1220	230
7436	Comp									
7437	Bias(4)									
7438	Comp							FeAr Clear	60s	
7439	HD154417	17 00 12	+00 51	02 12 31			Dec Drum +00 46		~~302~~	230
7440	Comp							FeAr Clear	60s	
7441	Comp							"	"	
7442	HD155937	17 09 30	+16 29	02 30 12		01 10W			600s	760
7443	Comp									

Spectr. Temp. ..... Dome Temp./Hum. 17°C/33.7% Transparency Conditions ..... CLEAR 170

Focus ..... 6.6.3 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 G=4900	200 μ				λ = 5010 Å	
233		V 10.5	F9					12ci	W x L		
248		V 10.5	F9					13ci			
246		10.5	F9					14ci			
230	2"	10.5	F9					15ci			
										Dome T = +16.9°C	
2900	2-3"	V 601	G0V					16ci	SJ/KI		
760	2"	V 8.59 ~~8.77~~	F8					17ci	W x L rgm	[4 dy interest too)	

171 #4

Emulsion Batches: .....

Date 1992 MAY 21/22. Observers ....W.x.L.f.T.n.f.F.b.r..... .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCO 7444	Comp							FeAr Clear	60s
7445	V829 Her	16 52.2	35 20	02 51 57					1200
7446	"	"	"	03 12 50					1200
7447	"	"	"	03 33 25					1200
7448	comp							60"	
7449	flat							10"	
7450	"	while still on V829 Her						"	
7451	"							"	

Spectr. Te
Focus ... A
Spectr. Te

Exp. Mtr.
348
350
424

Spectr. Temp. ..... Dome Temp./Hum. +16.7°C 35.3% Transparency Conditions .Sl. Hazy..... 172

Focus ... 6.63.....

Spectr. Temp. ..... Dome Temp./Hum. +16.8°C 36.5%

CLAMBDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
							5010A	~~15~~			
248	2½	10.1						18	W×L pgm		
330								~~19~~			
424								~~19~~ C			
										CCDT = −100.4 C	

173 pg #1

Fri / Sat

Date 1992 MAY 22/23 Observers W.x.L. / T.n.l. F.br/S.S.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.
cc 0745										
7453	Focus Test (Full Binning as Observing)			19 56		0 0	+25 45	Fear Clear	30/40	
7454	BIAS(4)			20 08						
7455	~~Comp~~ STV near	HD102870	(North 25')	20 11 07		00 12W		~~Fear Clear~~	300s ~~60sec~~	240
7456	Comp							Fear Clear	60sec	
7457	HD102870	11 45 29	+02 20	20 20 49		00 20W			216s	13,500
7458	"	"	"	20 26 10		0025W			168s	
7459	Comp							Fear Clear	60sec	
7460	BIAS(4)									
7461	Comp							Fear Clear	60sec	
7462	AH Vir	12 09 15	+12 22 37	20 39 37		022W			638	302
7463	— " —	12 09 15	+12 22 37	20 50 40		033W			603	~~302~~ 297
7464	Comp							Fear Clear	60sec	
7465	AH Vir	"	"	21 04 23					600s	300
7466	— " —	"	"	21 15 38					603	327
7467	Comp							Fear Clear		

Spectr. Temp. ..... Dome Temp./Hum. +22.2°C 45.0% Transparency Conditions . Sl. hazy .....

Focus . . . 6.63 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CLAMBDA

Topup done by 20 EST

T = -100°C 90 Cyain

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	T=6.63	T=+22.0C		CASS CCD	G=4400 1800 l/mm	200μ Full	5010 Å	3ci 7ci	Focus	480 0 50 1024 4 1 ≈.2 pixel Red OK cc Temp should drop Rst	CCDFmT
2408								7ci	SKY spectrum	Δ RA -00 00 8 Δ Dec +00 04 15	
								3ci			
13,800		V 3.61 "	F9 V "					5ci	Stdvel	4400 ADU MAX Δ Dec +00 03 50 MJD = 2448765.5633 Solar Corr = -26.5685	
								1ci		Dome T = +21.6C	
302	2"	V 9.3	K0					20ci	Wide pgm		
~~003~~ 237								2ci	"	Hazy	
300	2-3"							22ci	Wide pgm		
327								23ci	"		
								3ci			

175 pg #2

Date 1992 MAY 22/23. Observers W.K./T.D./F.Ber./S.J.../Stan +++

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr
CC07468	AH Vir	12 09 15	+12 22 37	21 30 16					611	314
7469	— " —	"	"	21 40 59					600	180
7470	Comp							FeAr Filter	60s	
7471	BIAS(4)									
7472	AH Vir			21 56 44		01 39W			600s	242
7473	AH Vir			22 07 0		01 50W			600s	280
7474	Comp								60s	
7475	AH Vir			22 20 38						280
7476	"			22 31 50						256
7477	Comp								60sec	
7478	AH Vir			22 45 34					620sec	213
7479	"			22:56:51					701sec	214
7480	"			23 09:09					720	201
7481	Comp									
7482	BIAS(4)									

Spectr. Temp. ..... Dome Temp./Hum. +21.3°C 52.5% Transparency Conditions ... Hazy ... 176

Focus .. 6:63 .....

Spectr. Temp. ..... Dome Temp./Hum. +20.7°C 58.5% CCDT = −100.5°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
314				CASS CCD	G= 4900	200 Full Length	5010Å	24ci			
300	2"-1"							25ci		1.23 AIRMASS	
242	2"							26ci		≈ 200 ADU above bkgnd per 4x	
280		V 9.3	K0					27ci			
								3ci			
280	2"							~~28ci~~			
256								26ci			
								3ci			
213								29ci			
214								~~30ci~~			
201								30ci			

177 pg #3

Emulsion Batches: .....

Date 1992 MAY 22/23. Observers W.x L. / J.T. / F.Gr. .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
CC07483	Comp							FeAr Clear	60sec	
7484	HD114762	13 07 30	+18 02	23 32 19		2 16 W			5295	1.000
7485	Comp							FeAr Clear	60secs	
→ 7486 7488	FLATS x3	at HD114762 posn						TUNG Clear	9secs	
7489	Comp for EF Drg							FeAr Clear	60sec	
7490	EF Drg	18 06 31	+69 44 24	00 02 31		01 54 E			1217	1.0
				~~00 30 59~~						
7491	Comp							FeAr Clear	60s	
7492	Bias (4)									
7493-5	FLAT x3	18 06 31	+69 44 24					TUNG Clear	9s	

Spectr. Ten
Focus.....
Spectr. Ten

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .. Hazy. no moon .....

Focus .....6.63.....

Spectr. Temp. ..... Dome Temp./Hum. ..... 90 c goin

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G 4900 1800 l/m	200 Full	5010Å				
1000	3"	7.31	dF7					25c	stdvel	1.29 A mass	
								2c		11 K max ADU/pixel	
100	3"	10.5						31c	WxL pgm	500 objects above bkgnd. 1.155 Air mass Even v hazy	

All to Perseus + WORM.

179
pg#1 sun mon

Date 1992 MAY 24/25. Observers W.x.L/I.Tn.....

Emulsion Batches:
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Spectr. Temp
Focus....6
Spectr. Temp

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr
CCD 7496	BIAS (4)									
7497	Comp							Fe Ar Clear	60s	
7498	HD102870	11 45 29	+07 20	20 26 23					15s	8/10
7499	Comp							Fe Ar Clear	60sec	
7500	Comp							"	"	
7501	HD107904	12 18 52	+43 06 00	20 41 23		00 23W			600s	4/14
7502	Comp							Fe Ar Clear	60sec	
7503	BIAS (4)									
7504 7505	Focus Test	Comp/Stellar		20 58		00 30W	+43°	Fe Ar Clear	30/15	
7506	Comp								60sec	
7507	BO CVn	13 54 58	+41 18 19	21 16 58					900	1/6
7508	"	"	"	21 33 07					900	1/50
7509	"	"	"	21 48 55					900	1/57
7510	comp									
7511	BO CVn	13 54 58	+41 18 19	22 11 41		00 22W			902	1/41

Spectr. Temp. ..... Dome Temp./Hum. 18.9°C 51.5% Transparency Conditions .. FINE 180

Focus .... 6.75 ..... 90 CGAin Topup & Cooling of Chip From Am Bizen 7 by 19:40

Spectr. Temp. ..... Dome Temp./Hum. ..... FOR Observations 480 0 50 1024 4 1 CCDFmt

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G 4900 /800	200u FULL	5010Å			CCDT = -100.2°C	
8,500		V 3.61	F9V					6c	Std vel		
4464	6"	V 5.93	F0					7c	W+L pgm - for Sp type comparison		
								6c			
										Pump T = +7.8°C	
		Focus 6.75 T=+7.7°C						3c 4c	Stellar Vel Rad Shifted	CCDFmT 360 0 12 1024 40 1	
								5c			
146		V 9.5 -10.1	F0					8c			
150								~~9c~~			
157								10c			
161								~~8c~~			

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pg #2

Emulsion Batches: .....

Date 1992 MAY 24/25 ... Observers ... W+L/J.T. ....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr
CC07512	BOCVn Edit	13 54 58	+41 18 19	22 27 55		00 08 W			900	161
CC07513	comp							Fe Ar Clear	60sec	
7514	BO CVn * Edit Header			22 47 02					900	209
7515	" * Edit			23 02 30					899	288
7516	comp							Fe Ar Clear	60sec	
7517	BO CVn			23 21 20					975s	300
7518	"			23 39 04					900	265
7519	Comp							Fe Ar Clear	60sec	
7520	BIAS(4)*	Average of 4 bias's		23 57				Tung Clear	8sec	
7521 -> 7523	FLATS x3									
7524	BO CVn			00 01 13					917	354
7525	"			00 16 46					921	291
7526	comp									
7527	BO CVn			00 36 35					900	292
7528	"			00 52 13					900	333

Spectr. Temp. ..... Dome Temp./Hum. 16.9°C 58.6% Transparency Conditions ...OK...some cloud in SW...

Focus ...6.75.....

Spectr. Temp. ..... Dome Temp./Hum. .....

CLAMBDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
161	5"	9.5 -10.1	FO	CASS CCD	G=4900 1800 l/mm	200μ Full	5010Å	10 Ci	WxL pgm		
								~~5 Ci~~			
209								~~11 Ci~~			
~~288~~	3"4"							11 Ci			
								5 Ci			
300								~~9 Ci~~ ~~12 Ci~~		Edit Hg for UT	
265								12 Ci			
								5 Ci			
								13 Ci		8700 MAX ADU/pixel	
284								~~14 Ci~~			
291								14 Ci		above backgrd. ≈ 1200 photons sum of 4 pix.	
292								~~15 Ci~~			
283								15 Ci			

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Date 1992 MAY 24/25 Observers W.L./.T.n.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
CC07529	Comp							FeAr Clear	60s	
7530	BD +60 CVn	13 54 58	+41 18 19	01 10 53					905	278
7531	"	"	"	01 26 16		03 37W			900	330
7532	"	"	"	01 42 09					913	260
7533	Comp							FeAr Clear	60s	
7534	Comp							"	"	
7535	HD171232	18 28 5	+25 25	02 07 32		00 15E			900s	330
7536	Comp							FeAr Clear	60s	
FM 0432 A B C D	HD171232 Seeing Test 4 frames.			≈ 02 20		≈00 00	"N" mode	67 Int sec		
7537	B/HS(4)									
7538	Comp							FeAr Clear	60s	
7539	EF Dra			2 42 48		00 40W			447s	35
7540	Comp							FeAr Clear	60s	
7541	HD187691	19 46 2	+10 10	03 00 47	03 05 47	00 50E			300	300
7542	Comp							FeAr Clear	60s	

Spectr. Temp. ..... Dome Temp./Hum. +5.5°C 58% Transparency Conditions Sl. hazy

Focus 6.75 Light N breeze

Spectr. Temp. ..... Dome Temp./Hum. ~~+4.9°C~~ 58% FANS were on since 1930

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	3			CASS CCD	G = 4900 1800 l/mm	200u Full	5010Å	5ci			
278	3"-5"	9.5 -10.1	FO					~~16ci~~	Wxt pgm		
260								~~16ci~~		1.254 Air mass	
260								16ci			
								~~5ci~~			
								5ci			
1800	5"	7.73	G8III					17ci	Std vel		
	± 6"	7.73	G8III						Seeing Test	Dome facing SW	
									-	Dome T = +4.8°C	
								5ci			
35								18ci			
4200	6"	5.11	F8V					19ci	Std vel		
								5ci			

185 Pg #1

Emulsion Batches: .....

Date 19.22 MAY 27/26 Observers .. BL../T.. .....

Note Header Times ≈ 6 sec. ahead of U.W.W. Time

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD7543	BIAS(4)			(Header or CCD3 pgm Times)					
7544 7545	Focus Test	Comp/Stellar Auto Tonian Pgms						FeAr clear	10/10
7546	Comp							FeAr Clear	10sec
7547	HD107328	12 15 16	+03 52	20 39 00		00 27 W			17s
7548	Comp							FeAr Clear	
7549 7551	FLATS x3	at HD107328 posn.						TUNG A=1/8	30s
7552	BIAS(4)								
7553 7554	Focus Test	Comp/Stellar		21 39				FeAr clear	10/10
7555	BIAS(4)								
7556 7557	FLATS x2							TUNG A=Clear	100sec
7558	Comp							FeAr Clear	50sec
7559	HD149757	16 31 39	-10 22	21 59 47		02 00 E			1862
7560	Comp							FeAr Clear	50s
7561	HD 149757	16 31 39	-10 22	22 36 16		01 24 E			1804
7562	Comp							FeAr Clear	50s

Spectr. Temp. ..... Dome Temp./Hum. +11.5°C 56% Transparency Conditions ... Some Cloud .....

Focus ... 6.75 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CCD Temp set accidently to "6" instead of "5"

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G=3606 B3° 1st order	200 Full length	6563Å			*: CCD Temp was -110°C	
	T=11.5°C		Set 675					3ci 4ci		vv sl Blue stellar	
								5ci			
4349		V 4.75	I II III					6ci	Std vel	MAX 9k ADU	
								6ci			
					G=3606 B3° 1st order		6563Å	7ci		1.2-4k ADU MAX	
								6ci		CCD Temp = -110 Temp T=11°C	
Set 6.75	T= +10.5°C				G=4300 1800 1st order	200μ Full length	4120Å	3ci 4ci		vsl Red stellar	
							CCD T= -100.7E now			4-8 0 55 1071 +1	
								5ci			
								5ci			
221K	4"	B 2.58	0975 V n					9ci	Blk pgm	5400 ADU MAX 30 min exp with 6 exps	
								10			
216K	4"	B 2.58	0975 V n					11	Blk pgm	All with (30K cnts ovr bkgd) centered at start of Exp.	
~~216K~~								12		Then trailed Full slit Length.	

187 fg #2

Date 1992 MAY 27/28 Observers B.L. / I.T.

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC07563 7564	FLATS x2			23 09 37				TUNG Clear	100s
7565	BIAS(4)								
7566	HD149757	16 31 39	-10 22	23 15 29		00 45 E			180
7567	Comp							Fe Ar Clear	50s
7568	HD149757	16 31 39	-10 22	23 49 29		00 10 E			1800
7569	Comp							Fe Ar Clear	50s
7570 7571	Flats x2						TUNG Clear	~~Clear~~ E	100s
7572	BIAS(4)								
7573	HD149757	16 31 39	-10 22	00 30 12	01 00 12	~~00 30 12~~ 00 27 54			
7574	Comp							Fe Ar Clear	50s
7575 7576	Flats x 2						Tung Clear		100s
7577	HD149757	16 31 39	-10 22	01 12 40	01 32 40				
7578	Comp							Fe Ar Clear	50s
7579 7580	Flats x 2						Tung Clear		100s
7581	BIAS (4)								

Spectr. Temp. ..... Dome Temp./Hum. +9.2°C 62% Transparency Conditions ... Sl. hazy RB

Focus ... 6.75 .....

Spectr. Temp. ..... Dome Temp./Hum. +8.1°C 63.7% CLAIMED 90 CGAIN CCDT = -100.5°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G=4300 1800 l/mm	200μ Full	4120A	13ci 14ci		12K MAX AW/pixel	
								1ci		Dome T = +9.2°C	
215K	3-4"	B 258	0.95V/n					15ci	Bln pgm	Full slitguiding after central stargaze	
								16ci			
231K	3"							17ci	Bln pgm		
								18ci		1ci	
								19ci 20ci		11K MAX	
								1ci		Dome T = +8.1°C	
253K								21ci	Bln pgm.	~~110~~ K ADI Seeing above ground	
								22ci			
								23ci 24ci			
247K	4"							25ci	Bln pgm		
								26ci			
								27ci 28ci		11K MAX	
								1ci			

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Emulsion Batches:

Date 1992. MAY. 27/28.. Observers .. Bln./J.T.n.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC07582	HD149757	16 31 39	-10 22	01 53 23		01 53 30W			180s
7583	Comp							FeAr Clear	50s
7584 7585	FLATS x 2							TUNG Clear	100s
7586	HD149757	16 31 39	-10 22	02 31 34		02 31 35W			180s
7587	Comp							FeAr Clear	50s
7588	bias (x4)								
FM0433 offs	HD176844	18 57 03	+10 32 36	~03 18		00 10W		"N" mode	67ms Int
7589	Nova Cyg 92	20 27 43	+52 17 39	03 23 45		00 47E			61s
7590	Comp							FeAr Clear	50s
→ 7591 7593	FLATS x3							TUNG A=1/4	30s
7594 7595	Focus Test	Comp/Stellar HORT							

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ... Ok ... part. cloudy 190

Focus ... 6.75 .....

Spectr. Temp. ..... Dome Temp./Hum. ... +7.5°C 66.5% CLAMBDA Fans OFF All night as per oddkeon code

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
237K	3"	B 2.58	0945 V	CASS CCD	G 4300 1800 ln/mm	200µ Full Length	4120A	29ci	Blk pgm		
~~237K~~								30ci			
								31ci 32ci			
183K								33ci	Blk pgm		
								34ci			
								1ci			
55x55 pixels	3"	6.65 ✓	MMT III			200µ Lower Right on monitor			Seeing Test	Dome west Light NNW wind	
	3"	x8 ✓			G 6000 1800 ln/mm	200µ Full Length		35ci	Nova Cyg pgm	10.3K MAX	
					"			36ci			
					"			37ci		13K MAX	
	Set	6.75	T = +7.6°C		"			3ci 4ci	stellar	.3 Red for stellar	

191 Pg #1

Date 11/May 28/29-1992. Observers [illegible]

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
cc 7596	FOCUS	12 25 29	+39 03 37	20 05		00 08E				
7597	FOCUS							FeAr Clear		
7598	BIAS(4)									
ABCD Fm00434 Hs	HD113811	13 01.2	+40 08	20 40		00 12E	61	"N" mode		47 47 pol
7599	Comp							FeAr Clear	50sec	
7600	HD62509	07 39.2	+28 16	20 53 09		05 19W			34s	13K
7601	Comp							FeAr Clear	50s	
7602	Comp									
7603	HD124897	14 11 06	+19 42 30	21 10 32		00 5AE			12sec	3K
7604	Comp							FeAr Clear	50s	
7605	Comp							"		
7606	HD87901	10 03 03	+12 27	21 23 13		03 26W			69s	30K
7607	Comp							FeAr Clear	50s	
7608	BIAS(4)									
7609 7611	FLATS x 3	At HD87901 posn						THAR A=1/4	30s	

Spectr. Temp. ..... Dome Temp./Hum. 14.4°c/49.5% Transparency Conditions Fine

Focus 6.6.7

Spectr. Temp. ..... Dome Temp./Hum. 41.32 53% 90 GAIN FANS ON 90 GAIN

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				GMOS CCD	1800 λ=5930	200 μ	6450 Å		Tel NORMALIZATION STAR (encoders)	BS 4728 used	
		Set 6.67		14.2°C					stellar uvi Red		
47x47 pixels	2"	V 695	M	67 msec Int		200μ Full Length			Seeing Test	Dome WSW (nowind)	
								~~3ci~~			
13K								4ci	Std Vel	guided 2.400 H.e mass	
								3ci			
								5ci			
8K	2"							6ci		8K max	
								7ci			
								~~8ci~~			
30K								9ci	Telluric Std	6K max A04 Hg mass = 1.690	
								8ci			
								1ci			
								10ci		13K	

193
pg#2

Date . May 28/29 1992 Observers . [Rm.] Tn/F.Br.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
~~ø7612	Comp							Fe Ar Clear	50s
7613	HD161096	17 38 30	04 37	21 50 25		3 41 E			73s
7614	Comp							Fe Ar Clear	50s
7615	BIAS(4)								
7616	Comp							Fe Ar Clear	50s
7617	HD198726	20 47 13	27 52 30	22 07 22		6 13 E			1800s
7618	Comp							Fe Ar clear	50s
7619	Comp							Fe Ar Clear	50s
7620	HD203156	21 15 23	37 49 00	22 45 43		6 03 E			1200
7621	Comp							Fe Ar Clear	50s
7622	Comp			~~23 14 42~~				Fe Ar Clear	50s
7624	HD162714	17 47 17	-06 07 12	23 14 42		2 17 E			600
7623	Comp							Fe Ar Clear	50s
7624 - 7627	Flat x3							T9 Δ=14	30s
7628	Bias(4)								

Spectr. Temp. ..... Dome Temp./Hum. 13°c / 53.8 Transparency Conditions .. CLEAR .. (SLT. HAZE) 194

Focus ..... 6.67 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS ON

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS cc 0	1800 a=5930	200 μ	λ=6450 Å	11 ci			
	2"	V 2.77	K2 III					12ci	Stilvel	36K ADU Sum 406 above background Ratio 1:160 : for 6 columns	
								1ci		Dome T = +12°C	
								3ci			
3460		V 5.75	GOIb					4ci	T Vul EVANS [Rm]	AIR MASS 4.090 HOUR Exp START 8400 ADU 50M above bkgd.	
								5ci			
								6ci			
7800	4"	V 6.6 -5.9	F2					7ci	HR8157 Rm pgm	10K 50M Avg above bkg. AIR MASS 2.682 at start	
								8ci			
								9ci			
3600								10ci	Rm Pgm		
				All to Perseus and WORK!							

195 #1
PB

Date May 29/30 1992 Observers F.B. (Backup by Bl by phone)

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
cc07629	Focus (Comp)									
7630	Focus (Star)									
7631	Bias (4)									
FM00435.fts (AOCO)	HD113811	13 01 12	+ 40 08							
7632	Comp							FeAr Clear	50s	
7633	HD 124897	14 11 06	+ 19 42 30	22 16 09	22 16 19	2 30 W			10s	9K
7634	Comp							FeAr Clear	50s	
7635	Comp							FeAr Clear		
7636	HD161096	17 38 30	+ 04 37 00	22 37 42		2 49 E		[illegible]	100s	4000
7637	Comp							FeAr Clear	50s	
7638 - 7640	Flat x3	17 38 30	+ 04 37 00			2 44 E		Tung N=1/4	30s	
7641	Bias (4)									
7642	Comp				22 54	5 43 E		FeAr Clear	50s	
7643	HD198726	20 47 13	+ 27 52 30	22 56 38		5 13 E			1600s	3500
7644	Comp							FeAr Clear	50s	

Spectr. Temp. ..... Dome Temp./Hum. 13.7°C/51% Transparency Conditions ....pdly. cloudy.....

Focus .....6.67.....

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS OFF (90 GAIN)

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Cass CCD	1800 $a = 5930$	200 μ	$\lambda_c = 6450$			BS 9778 to Normalize	
	2"	V 6.95		67ms TEST	(One of 4 frames not saved. T_m (B) June 92				SEEING TEST	DOME W (NO WIND)	
								3ci			
9K								4ci	STD VEL	40 K Sum Avg Above ~~Hgrd~~ Pgrd T = 12.2°C Hum = 53.2%	
4600	2"	V 2.77	K2 III					5ci	STD VEL	8400 Sum Avg Above ~~Hgrd~~ bgrd.	
								6ci			
								1ci		ccd Temp = -100.9°C	
3500	4"	V 5.75	G0Ib					7ci	Rm T Val pym		

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*2
90

Emulsion Batches:
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Date May. 29./.30.-1992. Observers ..Fbr..(..Bla...by.phone)

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
7645	FLAT ~~BIAS (4)~~	20 47 13	27 52 30						
7646	FLAT	20 47 13	27 52 30						
7647	FLAT								
7648	~~FLAT~~ BIAS (4)								

Spectr. Te
Focus....
Spectr. Te
Exp. Mtr.

Spectr. Temp. ..... Dome Temp./Hum. 11.7°C / 54.5% Transparency Conditions .... ~~Clear~~ Clouds 1998

Focus ..... 6.67 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS OFF (90 CRAN)

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality

199

Emulsion Batches: .....

Date .June 12 1992 Observers .... FBr ....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc Ø 7649	BIAS (4)	12 25 29	39 03 45	20 14 52					
FM0 0436.fit (ABCD	HD113811	13 01 12	+40 08						
7650	BIAS (4)	13 01 12	+40 08						
7651	Comp							FeSr Clear	50s
7652	HD124897	14 11 06	19 42 30	21 30 17	21 30 27				10s
7653 -7655	FLAT x3 (HD124897)							Tung Δ=1/4	30s
7656	Comp (HD124897)								
7657	Comp							FeSr Clear	50s
7658	HD87901	10 03 03	12 27 00	21 53 25		04 14 W			92s
7659	Comp							FeSr Clear	50s
7660	Comp							FeSr Clear	50s
7661	HD161096	17 38 30	04 37 00	22 13 32		03 01 E			93s
7662	Comp							FeSr Clear	50s
7663	BIAS (4)								
7664 7666	FLAT x3	17 52 55	04 32 21	22 30		02 52 E		Tung Δ=1/4	30s

Spectr. Temp. ..... Dome Temp./Hum. 16.4°C / 59.9% Transparency Conditions ..... CLEAR 200

Focus .... 6.67 ..... (1944) ccd Temp = -100.4°C

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS OFF (90CCAIN) 480 0 50 1024 4 1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 a = 5930	200 μ			λ = 6450 Å	BS4728 USED TO NORMALIZE 12 25 29 +39 03 37	
		V 6.95		G7 MS SEEN TEST						RENORMALIZED TO HD113814 DOME W (NO WIND)	
3500 B								4c i	STD VEL.	60 K Sum avg above bkgrd.	
								5c i			
								3c i			
										DOME T = 14°C HUM = 55.3%	
30 K	4"						λ = 6450	6c i	TELLURIC STD	40 K Sum avg above max	
								3c i			
10 K	4"	V 2.77	IC2 III					7c i	STD VEL	18K Sum Avg above max	
										AIR MASS = 1.760	

201
#2

Date ..June 1/2 - 1992... Observers ...FDr.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
ccd 7667	Comp							FeDr clear	50s	
7668	HD162714	17 47 17	-06 07 12	22 42 23		2 30 E			800s	4000
7669	Comp							FeDr Clear	50s	
7670	Comp							FeDr Clear	50s	
7671	HD203156	21 15 23	+37 49 00	23 08 26	23 28 26	5 24 E			1200s	3380
7672	Comp							FeDr Clear	50s	
7673	Bias (4)									
7674-76	Flat x 3 (@ HD203156)	21 18 56	38 12 42	23 33 20				Tung N=1/4	30s	
7677	Comp							FeDr Clear	45s	
7678	UU Her	1992.6 16 35 42.	1992.6 37 59 00	00 33 17					1000s	20
7679	Comp							FeDr Clear	45s	
7680	Bias (4)									

Spectr. Temp. ..... Dome Temp./Hum. ..13.2°C/.55.3% Transparency Conditions ....Clear..... 202

Focus .....6.6.7.....

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS OFF (90 again) CCD Temp = -100.4°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 a=5930	200 μ	λ=6450	3ci			
4000	6"	V 6.15	GOIb					8ci	Rm Pam	8400 SUM AVG ABOVE BCKRD AIRMASS = 2.167	
								3ci		DOME FOCUS NE. VERY STRONG WIND FROM NE!	
5880	6"-7"	V 5.8-5.9	F2			200 μ	λ=6450Å	9ci	Rm Pam	DOME T=13.6°/ HUM=54.8% 8 K SUM AVG ABOVE BKG!	
								3ci		AIRMASS = 1.86	
								5ci			
					1800 l/mm a=6020	200 μ	λ_c=6563Å		SS/Fe	H_α	
120											

All to Rosa + WEBB

203
Page 1 VN

Date ..June 2/3-92..... Observers ...Hlw./F.Or./Bhrm

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
cc 7681	Focus	12 25 28	+ 39 3 45							
7682	Focus	"	"							
FM00437 (ACCD) 7684	HD113811 comp (test)	13 01 12	76 08 00					FeNe	20sec	
7685	Comp for HD124897							FeNe	20s	
7686	HD124897	14 11 06	19 42 30	21:08:16	21:08:19				3 sec	OK
7687	Comp for AC+76530							FeNe	20sec	
7688	AC +76 5308	15 43 12	76 20 00	21:38:14	22:03:14	-1:7:00			1500 sec	105
7689	Comp for ↑							FeNe	20sec	
7690	Bias (4)									
7691	Flat	15 43 12	76 20 00					Tungsten	A=1/4 33 sec	
7692	Flat							Tungsten	A=1/4 33 sec	
7693	Flat							Tungsten	a=1/4 33 sec	
7694	Comp							FeNe clear	20sec	
7695	HD238010	12 07 36	35 09 00	23 38 09	23 58 09	+3:16:10			20min 120	

Spectr. Temp. ..... Dome Temp./Hum. 17.7°C/48.5% Transparency Conditions ..... CLEAR 204

Focus ..... 6.67 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS ON ccd temp: −100.9°C Format: 480 0 40 1024 4 1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					G=4983 1800 ℓ/mm	300μ longslit dekker	5140Å				
		∨ 6.95		C7MS SFSU TEST				3ci			
								3ci			
10K		0	K0p					4ci	~~Std~~ Vel.	30K ADU Sum Avg Above Bkg.	
								3ci			
105		13	M4	looks like K5				4ci	KK/HW	we don't have a field and are guessing a bit. Is this it? ↖ WRONG STAR, same as one on June 9/10	Great Seeing!
								3ci			
								1ci			
								1ci		with dekker	
								1ci		with dekker	
								1ci		with dekker	
								3ci			
	2"	↓ 9.5	M2					4ci	KK/HW	AIRMASS=1.15 DOME T=16.1°C/48.2%	

205 Page 2 (deux)

Emulsion Batches: .....

Date ..JUNE 2/3-92.... Observers ..Hlw./Fbr./Bhcm.... .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
7696	Comp							FeNe Clear	20s
7697	Bias (4)								
7698	~~AC -62 26749~~ → Comp							FeNe	20 sec
7699	AC -62 26749	17 34 30	61 45 00	00:24:26					1080 sec
7700	Comp							FeNe	20 sec
7701	Comp							FeNe	20sec
7702	HD 188512	19 50 24	06 09 00	01:15:02					97 sec
7703	Comp							FeNe	20sec
7704	HD 188512 Faint Companion	19 50 24	06 09 00	01:21:42		-1:32:30			1800 sec.
7705	Comp							FeNe	20 sec
7706	Flat	19 50 24	06 09 00					Tung	a=1/4 33sec
7707	Flat							Tung	a=1/4 33sec
7708	Flat.				01:57:30			Tung	a=1/4 33sec
7709	Comp							FeNe	20sec
~~7710~~	HD 187691	19 46 15	10 09 54	02:10:36					150 sec
7710									

Spectr. Temp. ..... Dome Temp./Hum. 16°c/49.2% Transparency Conditions .... CLEAR (QUITE HAZY) 298

Focus .....6..6.7.....

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS ON

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
								3ci			
								~~3ci~~ 1ci			
								3ci			
0 counts		9.95	M1 V.					4ci	KK/HLW	Perhaps not the right star — need field. ↑WRONG STAR	
								3ci			
								3ci			
10000 counts		3.7	G8					4ci	KK/HLW		
								3ci			
350 counts	3"	11.4	M3					4ci	KK/HLW	Air Mass: 1.33 Easily separated lots of sky background!	
								3ci			
								1ci		with dekker	
								1ci		with dekker	
								1ci		with dekker	
								3ci			
		5:16	F8 V						KK/HLW		

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Date June 2/3 1997 Observers Hlw/Fbr

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
7711	Comp							FeNe	20sec
7712	HD187691 Faint companion	19 46 15	10 09 54	02:25:49					007
7713	Comp							FeNe	20s
7714	Comp		57 17 00						
7715	HD 4614	00 43 03	[illegible]	03 07 36	03:08:36	-5:09			60sec
7716	Comp							FeNe	20sec
7717	HD 4614 Faint companion	00 43 03	57 17 00	03:12:36					720 sec
7718	Comp							FeNe	20sec
7719	Bias (4)								
7720	Flat			03:33:53			a = 1/4	Tung	33sec
7721	Flat						a = 1/4	Tung	33sec
7722	Flat						a = 1/4	Tung	33sec
7723	Flat						a = 1/4	Tung	33sec
7724	Flat						a = 1/4	Tung	33sec
7725	Flat						a = 1/4	Tung	33sec

Spectr. Te
Focus....
Spectr. Te

Exp. Mtr

Spectr. Temp. ..... Dome Temp./Hum. 13.9°C/56.8% Transparency Conditions ..... Haze approaches 208

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. ..... Fans on

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
								3ci			
23 counts		13.1	M4					4ci	KK/Hlw	15" SE of This is WEAK bright star	
								3ci			
		3.5	G0 V					3ci			
3985								4ci	KK/Hlw	3500 Sum Av. Abv. Bkgd.	
								3ci			
3300		7.5	M0 V					4ci	KK/Nlw	~10" NE of bright star	ADUs only 1/2 of above
								3ci			

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Date June 2/3 Observers HIW/Fbr

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
7726	Flat						Tung	a=¼	33 sec
7727	Flat						Tung	a=¼	33 sec
7728	Flat						Tung	a=¼	33 sec

Spectr. Te
Focus....
Spectr. Te
Exp. Mir

Spectr. Temp. ..... Dome Temp./Hum. 13.2°c / 60.7% Transparency Conditions .... Hazy 210

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality

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Date June 3/4 92 Observers HIW/Tn/Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
7729	Bias (4)								
7730	Focus Test	Comp pos'n	39:37:00			-0:08		FeNe	6 sec
7731		Stellar pos'n						clear	8 sec
FM00438 CABCD	HD113811	13 01.2	+40 08	≈2030			67 Int msec	"W" mode	
7732	Comp							FeNe clear	20 sec
7733	HD124897	14 11 06	19 42 30	204834					9 sec
7734	Comp							FeNe clear	20 sec
7735	Comp							"	"
7736	HD 110833	12 39 42	52 19 00	205850					331
7737	Comp							FeNe Clear	20 sec
7738	Comp							FeNe Clear	20s
7739	HD238090	12 07 24	55 09 00	21 17 20	21 52	02 10W			2070
7740	Comp							FeNe Clear	20s
7741	Comp							FeNe Clear	20s
7742	BD+71 851	174 06	71 22 00	22 35 53 ~~22 36 16~~		01 49E	15		2400
7743	Comp							FeNe Clear	20s

Spectr. Temp. ..... Dome Temp./Hum. 20.2°C / 47.7% Transparency Conditions ... Hazy .....

Focus .... 6.6.7 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Format: 400 0 12 1024 20 1 for focus test
400 0 40 1024 41 for all else

CLAMBDA [Tel NORMALIZED TO BS 4728]

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G=1983 1800	300μ (Longest Decker)	5140Å	1ci		90 CGAIN CCOT = -101 E	
				67ms seeing test				3&4ci			
4 frames		V=~~6.15~~ 7.53	KSIII						Seeing Test	Dome is pointing West no wind	
								5ci			
4500		O	K					6ci	Stdvel	6000 ADU Sum average of	OK
								7ci			
								8ci			
3000	1"-2"	V 7.0	K3					9ci	KK pgm	2800 Aou Sum Avg.	OK
								10ci			
								11ci			
1700	1"-2"	V 9.6	M2				λ=5140	17ci	KK Pgm	2000 Aou Sum Avg.	OK
								12ci			
								13ci			
2930	1"-2"	V 9.1	K4					15ci	KK pgm	Faint companion noted at 7" WSW (θ=225°) 2300 ADU sum AVG of 4 Cols ✓	OK
								16ci			

213

Pg#2

Date JUNE 3/4 Observers [KK] Fbr/Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
CC0774	BIAS (4)									
7745	Comp							FeNe Clear	20s	
7746	HD 123782	14 04 36	49 56 00	23 25 06	23 26 06	1 34 W	18		60s	Acc
7747	Comp							FeNe Clear	20s	
7748	"							"	20	
7749	UU Her	16 32 27	38 10 16	23 34 48			21		1800	1647
7750	Comp							FeNe Clear	20s	
7751	Comp							"	"	
7752	BD+76 785	20 13.9	+76 55	00 26 59		02 33E	2		2160	2
7753	Comp							FeNe Clear	20s	
7754	Bias (4)									
7755 – 7763	Flat (x 9)	At BD+76 785 posn.						Tung n=1/4	33s	

Spectr. Te
Focus ... 4
Spectr. Te

Spectr. Temp. ..... Dome Temp./Hum. +18.7 ... 50.7% Transparency Conditions Hazy 214

Focus ... 6.67 .....

Spectr. Temp. ..... Dome Temp./Hum. +16.5°C 60% .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 a = 4983	300μ long	λ = 5140				
								17c i			
2900		v 5.25	M2 III ab					18c;	~~Ref~~ St/Id	1800 Sum Avg above background	
								19c;			
								20c;			
3647	2"	v 9-9	F8I					21c:	Fe pgm	Not in HD cat	
								22c		3500 Sum Avg above bkgrd.	
								23c		West one of wide pair	
720	*4"-8"	v 9-3	M0					24c;	K pgm	*Seeing suddenly went ↑ CORD FLD doesn't match (Fast Fld Drawn)	(wrong star)
				Aim To Perseus SW of WORM					CCD T at End - 100.4C		

215 sun/mon

Date June 7/8 92 Observers HIW/TN Encoder Tests for [KK]

Emulsion Batches: .....

Spectr. Te
Focus ....
Spectr. Te

Plate No.	Object	R.A. ~~1900~~ 1992.5	Declination ~~1900~~ 1992.5	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr
FM00438 (ABCD)	BS 5299	1992.5 coords 14 07 38	43 53 24			-0:15:00		"N" mode		
	BS5299	"	"	21:04:30		-0:14:00				
	BS3881	09 48 07	~~09 48 07~~ 46 03 23	21:09:50		4:11 West				
	BS5315	14 12 30	-10 14 21			0:6 East				
	BS 6872	18 19 36	36 03 39	22:24:00		4:06 East				
	BS 5321	14 08 52	77 34 58			~~0:16 West~~				
	"	"	"			0:25 West				
	BS3881	09 48 07	46 03 22			4:10 West				
	BS5315	14 12 30	-10 1421			0:48 West				
	BS 6872	18 19 36	36 0339			3:12 East				
	BS 5299	14 07 38	43 53 24			1:09 West				
CC07764	BIAS(4)									
CC07765 7766	Focus Test			00 50		0 0	+12°	FeNe Clear	30/40	
	FLAT to demonstrate	apparent	water on cap window			n	n	Tungs Clear	40se	

Spectr. Temp. ..... Dome Temp./Hum. 18.5°c/96.2% Transparency Conditions Haze, slightly foggy. 28
some clouds.

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. +18.0°C 96.8%

FANS OFF

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		5.27	M4.5	Int=67m secs		Lower of 310μ	Right slit		Seeing test	No integration for these tests (Perhaps was a no-horn comparison with 2"-whoops!)	
		"	"	Isolated layer from WWV Time			Autoset OK too!		Encoder test	telescope normalized	
		5.09	G0.5	IVa					Encoder test	to star W -18^{s}α +3′09″δ	
		4.19	K2.5				West side of Pier		Encoder test	S -13^{s}α -1′15″δ	
		4.33	K2						Encoder test	E +1^{s}α +0′39″δ	
		4.82	K3 III	Note after Seeing Test is Focus will move image rel to slit.	Tel focus not touched				Encoder test	N +29^{s}α +1′39″δ	
		"	"						Encoder test	N -42^{s}α -1′39″δ	
		5.09	G0.5 IVa				East side of Pier		Encoder test	W -21^{s}α -3′06″δ	
		4.19	K2.5						Encoder test	S -10^{s}α -3′03″δ	
		4.33	K2						Encoder test	E -3^{s}α -2′51″δ	
		5.27	M4.5				G=4415 4300Å		Encoder test	Zenith -22^{s}α -2′39″δ	
						310μ 3 windows		1ci			
	Se 6.67	T=+17°C					"	8ci 4ci	480	Shutter test Blue 0 20 1024 10 1 cosmics	
							"	6ci	not written	Shutter drops on sunset	
									490	0 50 10 24 4 1	

217 pg#1 Mon TUES

Date 1992 June 8/9 Observers [Rm] Th Fbr Kamran

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
7767									
7768	Focus Test					0 0	+30°	FeAr clear	30/40
7769	BIAS(4)								
7770 FM06 440	→ Comp	HD120245 for Seeing Test				Int 6'/min	N mode	FeAR clear	60sec
7771	HD124897	14 11 06	+19 42 30	20 39 28	2039				13s
7772	Comp								
7773	Comp								
7774	HD87901	10 03 03	+12 27	20 49 12					54s
7775	Comp								
7776	Comp								
7777	HD161096	17 38 30	+04 37	21 03 34		E			124sec
7778	Comp							FeAr clear	60s
7779	Comp							n	60s
7780	HD171232	18 28.5	+25 25	21 31 11		0356E			718
7781	Comp							Fe Ar clear	60s
7782	BIAS(4)								

Spectr. Temp. ..... Dome Temp./Hum. +16.7°C 51.5% Transparency Conditions Mostly Clear 218

Focus ... 6.67 .....

Spectr. Temp. ..... Dome Temp./Hum. 14.6°C 52% 90CGAin as usual

FHNS on from start

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion 6450A	P.H.	Program	Remarks	Quality
	T=16.7°C			CASS CCD	G=5930 1800 n/mm	200u Full Length	[Stellar VSI Red]		Focus →	CCD Fmt 360 0 12 1024 401	
										440 0 50 1024 4 1 CCD Fmt	
4 frames		V 6.95	K0 III		Light NW wind	on 200u slit had.		5c:	Seeing test	Dome SW	
12K		0	K2 IV				6450Å	6c:	std vel	12.4 km/s	
								7			
								8			
28K		V 1.36	B7 V					9	Telluric Std		
								4			
								10			
		V 2.77	K2 III					11c:	Std vel	18K 400 Sum Avg 3 exp	
								12c:			
								13c:			
	4"	V 7.73	G8 II					14c:	Std Vel	1800 ADU SUM AVG of 3 exp	
								15c:			

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Date 1992 JUNE 8/9 Observers [Rm] Jn Fbr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC07783	Comp							FeAr Clear	60s
7784	HD 203156	21 15 23	+37 49	21 58 59		06 15 E			646s
7785	Comp							FeAr Clear	60s
7786	Comp							"	"
7787	HD 198726	20 47 13	+27 52 5	22 18 43					719
7788	Comp							FeAr Clear	60s
7789 7791	FLATS x3					02 11 E	-6°07	Tung A-1/4	25s
7792	Comp							FeAr Clear	60s
7793	HD162714	17 47 17	-06 07 12	22 58 34		01 44 E			894s
7794	Comp							FeAr Clear	60s
7795	Comp							"	"
7796	HD 214975	22 36 55	+56 18 24	23 27 27		E			2481
7797	Comp							FeAr Clear	60s
7798	Comp							"	"
7799	HD203156	21 15 23	+37 49	00 16 42					600s
7800	comp							FeAr Clear	60s

Spectr. Temp. ..... Dome Temp./Hum. 14.6°C : 51.4% Transparency Conditions PART Cloudy 220

Focus 6.67

Spectr. Temp. ..... Dome Temp./Hum. ..... (ZAMBO)

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G 5930 1800 l/m/mm	200u Full	4450B	16c:			
1840	6"	V 5.8 -5.9	F2					17c.	Rm pgm HR8157	Cloudy 2700 ADU Sum AVG Top PRIORITY P=3333	
								18c:			
								19c:	Rm pgm	cloudy	
1960	6"	V 5.75	G0Ib					20c:	Rm pgm	3200 ADU Sum AVG 6 cols	
~~1960~~								—			
								21c:		Cloudy 10 km HX	
								22c:			
930	6"	V 6.15	G0Ib					23c:	Rm pgm	cloudy 1800 ADU Sum AVG	
								24c:			
								25c:			
2220	4"	V 8.4	G0Ib					26c:	Rm pgm 2 Lac	thin cloud 4500 ADU Sum Avg	
								27c:			
								28c:			
5400	6"	V 5.8 -5.9	F2					29c:	Rm pgm HR8157	Repeat Clearer now	
								30c:			

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Emulsion Batches: .....

Date 1992 June 8 9 .... Observers [Rm] Seavice ... T. ... Fbr ... Kamran

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC07801	BIAS (4)								
7802	Comp							FeAr Clear	60sec
7803	HD162714	17 47 17	-06 07 12	00 55 58		0 10 E			300s
7804	Comp							FeAr Clear	60sec
7805	Comp							"	"
7806	HD173297	18 39 20	-20 45 00	00 57 32		0023 E			180s
7807	Comp							FeAr Clear	60sec
7808	Comp							"	"
7809	HD124897	14 11 06	+19 42 30	01 36 06		W			18s
7810	Comp							FeAr Clear	60.
7811	Comp							"	"
7812	NOVA Cyg 92	20 27 43	+52 17 39	01 45 53		01 36E			900s
7813	Comp							FeAr Clear	60s.
7814 7816	FLATS x3					01 30E	+5235	TUNG A=1/4	25sec
7817	Comp							FeAr Clear	60s

Spectr. Temp. ..... Dome Temp./Hum. +12.7°C 55.3% Transparency Conditions ... Part Cloudy 22

Focus ... 6.67 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G5930 1800 l/mm						
						200u Full	6450Å	31c;	Rm pgm	Repeat	
4250	5"	V 6.15	GOIb					32c;	Su Yoph	↓ 7200 Adu max Sum avg	
								~~34c.~~			
1790	6"-8"	V 7.48	GOIb					34i;	Rm pgm	3500 ADU Sum AVG	
								33c;			
								8ci			
15K	8"	0	K					9ci	Std Vel	14 K max Arms 1.877	
								10ci			
								11ci			
1000	5"							12c.		10 K max	
								13c;			
								~~15ci~~			
					G6070 1800 l/m	≈ 65		Kci		↑ Change	

223 pg 4

Date 1992 JUNE 8/9 Observers F.Br. J.Tn.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCG7818	Nova Cyg 92	20 27 43	+52 17 39	02 13 48		01 12 E			60s
7819	Comp							Feff Clear	60s
7820	BIAS (4)								
7821	Comp	16 32 27	38 10 16	02 38 30				Feff Clear	60s
	~~Nova Cyg 92~~	"							
7822	UU Her	16 32 27	38 10 16	02 38 30		2 37 W			2400
7823	Comp							Feff Clear	60s
7824-26	FLAT x3	16 32 27	38 10 16					T-ray Δ=1/4	25sec
7827	BIAS (4)								

Spectr. Temp. ..... Dome Temp./Hum. 11.4°C 61.5% Transparency Conditions ... Fine 224

Focus ... 6.67 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
540	5"			CASS CCD	G6020 1800	200μ FULL	Hα	17ci		7K MAX	
								18ci			
								19ci			
	4"	√ 8-9	F8I		1800 α=6020		λ=6563 Hα	20ci	Fe/SS pgm		
1079	4"	√ 8-9	F8I				Hα	20ci	Fe pgm		

All to Perseus and WORM

2p25
9

Tue/Wed

Date June 9/10 '92 Observers Hlw/Fbr

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCØ7828	Focus test								
7829	Focus test								
FMDO441 (CABLO) (441)	HD113811	13 01 13	40 08 00						
7830	Bias (4)								
7831	Comp							FeNe clear	20s
7832	HD124897	14 11 06	19 42 30	21:16.00	21:30:09	0:1 E			4s
7833	Comp (HO238090)							FeNe clear	
7834	HO238090	12 07 24	55 09 00	21 32 09	22:12:09	2:57 W			2400
7835	Comp							FeNe Clear	20sec
7836	Comp							FeNe clear	20s
7837	HD110833	12 39 42	52 19 00	22:22:40	22:30:40	2:45 W			480sec
7838	Comp							FeNe clear	20sec
7839	Bias(4)								
7840	Comp							FeNe clear	20 sec
7841	AC +76 5308	15 43 12	76 20 00	22:59:48					

Spectr. Te
Focus....
Spectr. Te

Exp Mtr

Spectr. Temp. ..... Dome Temp./Hum. 16.1°C / 45% Transparency Conditions ..... CLEAR .....

Focus ..... 6.67 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS OFF Format: 490 0 50 1024 4 1

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G = 4983 1800 ℓ/mm	310μ triple slit	centre: 5140Å			Normalization to [redacted]	
										1992.5 coords: 12 25 29 39 03 37	
								1ci			
								3ci			
10,000c		O	K					4ci	Std. Vel		
								3ci			
1800c		✓ 9.5	M2				λ = 5140Å	5ci	KK/Hlw		
								3ci			
								3ci			
3500c		7.0	K3					6ci	KK/Hlw		
								3ci			
								1ci			
								3ci			
		13.0	M4					7ci	KK/Hlw	WRONG STAR.	

227
pg 2

Date June 9/10 Observers Hlw / Fbr

Emulsion Batches:
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Spectr. Tem
Focus .....
Spectr. Tem

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
7842	Comp.							FeNe Clear		
7843	Flat							Tung	a=¼ 33 sec	
7844	Flat							Tung	a=¼ 33 sec	
7845	Flat							Tung	a=¼ 33 sec	
7846	Comp							FeNe Clear		
7847	Ross 226	22 50 30	60 28 00	00:49:51	01:49:51	4:05 E	+60		3600	4/6
7848	Comp							FeNe Clear	20 sec	
7849	Comp			~~02:01:53~~	02:31:53			FeNe Clear	20 sec	
7850	BD +71 851	17 40 06	71 22 00	02:01 53	~~[illegible]~~	1:52 W			1800s	1570
7851	Comp							FeNe Clear		
7852	Comp							FeNe Clear		
7853	AC +62 26749	17 34 30	61 45 00	02:46:58	03:16:58	2:40 W			1800s	
7854	Comp							FeNe Clear	20 sec	
7855	Bias (4)									
7856 - 7851	Flat x 9							Tung	a=⅛ 33 sec	

Spectr. Temp. ..... Dome Temp./Hum. 14°C / 45.7% Transparency Conditions ..... Clear 228

Focus ..... C.67 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
								3ci			
								8ci			
								8ci			
								8ci			
								3ci			
41c		13.2	M4					9ci	KK/HIW	spectrum looks wrong (HIW 11-93)	
								3ci			
		[redacted]	[redacted]					3ci			
1570		9.1	K4					10i	KK/HIW		
								3ci			
								3a			
		9.95	M1 [redacted]e					11ci	KK/HIW		
								All [redacted] to WORM & Perseus			

229 pg 1

Date June 10/11 Observers Hlw/Fbr

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC07862	Focus test								
7863	Focus test								
FM00442 (ABCD)	HD113811	13 01 12	40 08 00	21:33					
7864	Bias (4)								
7865	Comp							FeNe clear	20 sec.
7866	HD103095	11 47 12	38 26 00	21 50 08		3:01 W			162 sec
7867	Comp							FeNe clear	20 sec
7868	Comp							FeNe Clear	20 sec
7869	AC +76 5308	15 43 12	76 20 00	22:22:12	23:22:12	0:41 W			3600 sec
7870	Comp							FeNe Clear	20 sec
7871	Bias (4)								
7872 7874	Flat X3	15 43 12	76 20 00					Tung N-14	33sec
7875	Comp							FeNe Comp	20sec
7876	AC+62 26749	17 34.5	61 8	00 43 25 ~~00 00 13~~	01 13 25	0:39 W			
7877	Comp								

Spectr. Temp. ..... Dome Temp./Hum. 18.6°C/44% Transparency Conditions ..... Clear 230

Focus ..... 6.67 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

FANS ON

Format: 490 0 50 1024 41

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					q = 4983 1800 ℓ/mm	30μ triple	λ = 5140			Normalization to BS 4728	
										1992.5 coords. α = 12:25:29 δ = 39:03 37	
		V = 7.53	K5 III						Seeing test	Dome pointing west	
								1ci			
								3ci			
~2500 counts		6.45	G8 IV					4ci	Std Velocity	~2000 Sun Av. above bias	
								3ci			
								3ci			
450 count		13.0	M4					5ci	KK/HW		
								3ci			
								1ci			
								6ci			
								3ci			
		9.95	M1					7ci	KK/HW	Good Spectrum!!	
								3ci			

231 Pg 2

Date June 10/11 Observers Hiw/Flor/Bhrm

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
7878	Bias (4)								
7879	Comp							FeNe Clear	
7880	BD +76 785	20 13 54	76 55 00	01:42:44	02:07:48	1:00 E			506 sec
7881	Comp							FeNe Clear	
7883	~~AC+65 6955~~ Comp.							FeNe Clear	
7882	AC+65 6955	20 29 00	65 06 00	02:34:01	03:04:01				1800s
7884	Comp							FeNe Clear	4
7885	Comp							FeNe Clear	
7886	AC +75 8347	21 57 04	75	03 25 21					448
7887	Comp							FeNe Clear	
7888	Bias (4)								
7890 -7894	Flat x 6								

Spectr. Temp. ..... Dome Temp./Hum. 15°C/56.1% Transparency Conditions Clear

Focus 6.67

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
								1ci			
								3ci			
740		9.3	MO					8ci	KK/Hlw	1200 sum ADU above avg. → does not look like M star.	
								3ci			
								3ci			
		10.4	M3					9ci	K K/Hlw		
C											
										Not the star	

All-Optw.

233 pg 41

Thurs Fri

Date 1992 JUNE 11/12 Observers [Rm] Fbr/TA

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC 07895 7896	Focus Test	Comp/Stellar Hartmann		20 40		01 20	+40°		20/25
FM 00443 (ADLO)	HD 113 811	13 01 12	+40 08				4 frames	"Nimate	
7897	Comp							FeAr Clear	60sec
7898	HD 123 782	14 04 24	49 56	21 03 42		00 03 W			145sec
7899	Comp							FeAr Clear	60sec
7900	BIAS (4)					0	0		
7901	Comp							FeAr Clear	60sec
7902	HD 87901	10 03 03	+12 27	21 24 13		4 23 W			63sec
7903	Comp							FeAr Clear	60sec
7904	Comp							"	"
7905	HD 171232	18 28.5	+25 25	21 40 47		-3 34 E			563
7906	Comp							FeAr Clear	60s
7907 7909	FLATS x3	at HD 171232 posn						Tung A:1/4	17s
7910	Comp							FeNe	40s
7911	HD 171232	18 28 30	+25 25	22 08 58					889s

234

Spectr. Temp. ..... Dome Temp./Hum 20.3°C 45% Transparency Conditions . Fine .....

Focus ... 6.58 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CLEAR/DRY

CCDT = -100°C
FANS OFF 90 CGAIN

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	1.7"			CASS CCD	G-5930 1800 l/mm	200μ Full	6450Å	3 4	360 012 024 40 1 CCDFMT	stellar vel std BD+0	
		V 7.93	K5 III			480	0501024	41	CCDFMT ↓	DOME WEST. Pointing	
								5			
		V 5.25	m2 III ab					6	S-O-Vel.	7200 ADU MAX	
								7			
								8			
		V 1.36	B-V					9	Telluric Std	12k MAX ADU 2.32 Air mass	
								10			
								11			
2000	2"	V 7.73	G8 III					12	std vel	2400 MAX ADU.	
								13			
				* CHANGE *							
				α = 4380	λ = 4250	200μ FULL			Bhrm pgm. (mentor & student)		
4000		V 7.73	G8 III						std vel	3K Sum Avg.	

235
2

THURS - FRI

Date ...1992 JUNE 11/12 Observers ...E.R.M.J.F.Br./.T.n./.Bh.r.m.

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
7918	COMP							FeNe Clear	40s
7913	COMP							FeNe Clear	40s
7914	HD186408	19 39 06	50 18 00	22 3940		03 44E			107s
7915	Comp	BIAS(4)-CCD7916						FeNe Clear	40s
7917	FLAT							TUNG Clear	60sec
7918	Comp							FeNe Clear	50s
7919	HD186408	19 3906	+50 1800	230910					117s
7920	Comp							FeNe Clear	50s
7921	FLAT							TUNG Clear	
7922	Comp							FeAr Clear	60s
7923	HD203156	21 1523	+3749	235447		0410E			530s
7924	Comp							FeAr Clear	60s
7925	Comp							"	"
7926	HD198726	20 4713	+275230			0326E			45s
7927	Comp								
7928	BIAS(4)								

Spectr. Temp. ..... Dome Temp./Hum. 19.0°C / 42.5% Transparency Conditions ..... Clear .....

Focus ..... 6.5.8 .....

Spectr. Temp. ..... Dome Temp./Hum. 17.5°C / 48% CLEAR BOX

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
							4250A				
							"				
20 000	1-2"	V 5.96	G2 V	CASS CCD	G=4380 1800	200 μ	"	19 ci	Bhrm pgm		
						"	"				
						"	"			MAX ADU 11K ℓ	
				X Change	G=4175 1800 l/mm	"	3927A				
20K	2-3"	V 5.96	G2 V			"	"	22ci	Bhrm pgm		
							"				
							"				
				~~X Change~~	~~X~~ G 5930 1800 l/mm	200μ Full Length	6450A	25ci		* within 1 pixel of last set at G=5930	
7880	~~1-2"~~	V58-59 F2	F2					26ci	Rm pgm	13K ADU Sum AVG of 7 cats 250K photons	
								27ci			
								28			
6000	1-2"	V 5.75	G0 Ib					29ci	Rm pgm		
								~~30ci~~			

237 pg 43

Thurs Fri

Date 1992 JUNE 11 12 ... Observers [Rm] .. Ts. / . Fbr. / Bhrm.

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
CCO 7929	Comp							FeAr Clear	60s	
7930	HD 162714	17 47 17	-06 07 12	00 28 34		00 08 E			600s	7050
7931	Comp					00 08 E		FeAr Clear	60s	
7932 → 7934	FLATS x 3	at HD162714 posn		00 44			Accidant ApF 1/4 +	Tung A-1/4	25s	
7935	Comp							~~FeAr Clear~~	60s	
7936	HD 173297	18 39 20	-20 45 00	00 53 25		00 16 E			1800	5700
7937	Comp						Ap = 1/4	~~FeAr Clear~~	60s	
7938	Comp						Ap = 1/4	FeAr Clear	60s	
7939	HD 214975	22 36 55	56 18 24	01 33 38		3 16 E			2719	3360
7940	Comp							FeAr Clear	60s	
7941	Comp							FeAr Clear	60s	
7942	HD 203156	21 15 23	37 49 00	02 26 41					337	4000
7943	Comp							FeAr Clear	60s	
7944	Comp							FeAr Clear	60s	
7945	HD 171232	18 28 30	25 25 00	62 39 57		01 21 W			44 1/2s	1200

Spectr. Temp. ..... Dome Temp./Hum. 17.6°C 47% Transparency Conditions ... Sl. hazy ... 238

Focus ... 6.558 ...

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS OFF

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800h/mm	200μ FULL	6450Å	30c;			
7050	2"-3"	V 6.15	GOIb					31c;	Rm pgm		
								32c;			
								33c;			
		V ~~7.48~~	~~GOIb~~					~~34c~~;	Rm pgm		
4700	2"-3"	V 7.48	GOIb					35c;	Rm pgm		
								7c;			
								8			
3360		V 8.40	GOIb					9c;	Rm pgm	~~3000~~ sun dog ADU	
								10c;			
								11			
6600		V 5.8 5.9	F2					12	Rm pgm/Rayleigh		
								13			
								14			
2100		V 7.77	G8 III					15c;	Std Vel		

239 page #4

Date 92-JUNE 11/12 Observers E.R.M.J.Tn./F.Br./Bhm

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
7946	Comp							FEAr Clear	60s
7947	Comp							FEAr Clear	60s
7948	Nova Cyg 92	20 27 43	52 17 39	02 53 55		0026 E			273
7949	Comp								
7950	BIAS (4)								
7951 7953	FLATS x 3	at Nova Cyg 92 posn						TUNG A-1/4	25s
7954	Comp							FEAr CLEAR	60s
7955	Nova Cyg 92	20 27 43	52 17 39	03 09 30		0010 E			280
7956	Comp							FEAr CLEAR	60s
7957 7959	FLATS x 3	at Nova Cyg 92 posn.						TUNG A=1/4	
FM00444	SATURN			≈0330					

240

Spectr. Temp. ..... Dome Temp./Hum. 16.8°C / 49.2% Transparency Conditions ... CLEAR .....

Focus .....6.5.8.....

Spectr. Temp. ..... Dome Temp./Hum. +16.6C 49.2% FANS OFF

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 G=5930	200 μ	6450Å	16			
								17			
800	2"3"							18i;		13k max	
								19i;			
								20i;		11k max	
					G=6020		6563Å	21i;			
650	2"	~18.5						22i;		getting close to sunset;	
								23i;		14k max	
								24i;		11k max	
1 Frame for TOUR use											

241

Fri - Sat

Date ..1992 June 12/13 Observers [Rm.] ... Tn / Fbt / Bhm. Shen came in

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC07960	BIAS(4)			-					
7961	Comp			'		(using 60 OBS)		Fe Ar Clear	60sec
7962	HD123782	14 08 01 (14 04 6 1900)	+49 29 37 (+49 56 1900) 19425	21 48 35		00 51 W			120s
7963	Comp							Fe Ar Clear	60sec
=m00A45 ABD	HD144579	16 01 30	+39 25 36	≈23 25		00 30 W		N wedge	67 msec
	~~Comp~~							Fe Ar ~~Clear~~	60sec

Spectr. Temp. ..... Dome Temp./Hum. 22°C 44% Transparency Conditions some thin cloud 242

Focus ... 6:58 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CLAMROH

FANS on as by convention

CCDT -> -100°C 90

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	B 53.2° 1800 l/mm	200μ Full	6450Å	1c:	Tel NORMALIZED	TO HD123782 a Std Vel	
								5c:			
None	1.7"	V 5:25	M2 II-b					6c:	Std Vel	7600A09 max no sp cont A: manual	
								7c:			
47x47 pixels		V 666	G8 ~~Filter~~		4 trunos	200μ Slit Head			Seeing Test	med SW breeze Dome West	
								~~8c:~~			

243
pg SAT SUN

Date 1992 JUNE 13/14. Observers [K.K.]...Tn./F.Bs./...Kamran [BHKM]

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
cc7966	BIAS(4) written after WRITE of FOCUS			2348					
cc7964 7965	Focus Test					0 0	+35°	FeNe Clear	10/13
7967	Comp							FeNe Clear	60s
7968	HD 159561	17 30 18	+12 38 00	00 10 04					104s
7969	HD 159561	"	"	00 18 11					154
7970	Comp							FeNe Clear	60s
7971	"							"	7
7972	HD 182640	19 20 30	+02 55	00 30 23					716s
7973	Comp							FeNe Clear	60s
7974	HD 182640	19 20 30	+02 55	00 49 47					912
7975	Comp							FeNe clear	60s
7976	Comp	~~17 00 12~~	~~00 51 00~~	~~02 22 28~~				FeNe clear	60s
7977	HD 154417	17 00 12	00 51 00	02 22 28		1 39 W			1660
7978	Comp							FeNe Clear	60s
7979 7990	FLAT x12	17 00 12	60 51 00					Tiny M=Clear	40s

Spectr. Temp. ..... Dome Temp./Hum. +21.8°C 48.5% Transparency Conditions ... Hazy .....

Focus ... 6.58 .....

3 Large Towns Jupiter's moon.

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD							
		+21.8°C 50% 6.58			G=4415 1800 l/mm	310u Triple window	4300Å	3c; 4c;		Stellar 2 pixels Red Stellar needed 30% more to match comp strength	
							4300Å	5c;			
50K	2"	B 202	A5III					6c;	KK pgm 2 opn		
70K		"	"					7c;	"	guided Full mid slit Length 36K ADU sum AVG (10 obs)	
								8c;			
								9c;			
70K	3"	B 368	FOIV					~~10c;~~	KK pgm	guided Full mid window 5.17 Part Cloudy MAX 9K ADU 2200 10th sum AVG of 6 obs	
								11c;			
101832		B 368	FOIV					~~10c;~~	KK pgm	42K	
								11c;			
										Plly Cloudy.	
6220	5-4"	V 601	a0 I							3600 Sum Avg.	
				Bad Seeing & Cloud							
				Dll to Personal WORK.							

245 pg#1 Sun - Mon

Date 1992 June 14/15 Observers W.x.L./T.n. Emulsion Batches: .....

Header Times 5 secs ahead of U.U.V. Time.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr
FM00446 ABCD	HD 120245	13 43 11	+38 23 33	20 25			'N' mode	Int 67 msec		
CCD 7991	Comp							FeAr Clear	30sec	
7992	AH Vir	12 09 15	+12 22 37	20 58 19		07 21 W			1205	
7993	Comp							FeAr Clear	30s	
7994	BIAS(4)									
7995	FLAT							TUNG Clear	40s	
7996	Comp							FeAr Clear	30s	
7997	HD 126053	14 18 06	+01 43 00	21 38 50		00 41 W			480s	
7998	Comp							FeAr Clear	30s	
7999	Comp							FeAr Clear	60s	
8000	HD 126053	14 18 06	+01 43 00	21 55 51		00 58 W			480	
8001	Comp							FeAr Clear	60s	
8002	Comp							"	4	
8003	EF Dra	18 06 31	69 44 24	22 16 33		1 12 E			1200	
8004	EF Dra	"	"	22 37 35		01 51 E			1200	

Spectr. Temp. ..... Dome Temp./Hum. +16.5°C..46% Transparency Conditions ... Fine .....

Focus .. 6.67 .... # changed. pack on ~~seeing~~ focus test CCD had warmed up during day.

Spectr. Temp. ..... Dome Temp./Hum. ..... 90 CCD Gain CCD T → −100°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
55×55 pixels	poor	✓ 6.95	KO III			200μ Lower Right			seeing test	Dome West, mod NNW wind.	
				CASS CCD	~~CASS~~ 1800 G=4406	200μ FULL	4270Å	5ci			
562	5"	✓ 9	KO					6ci	Ecl WUMa	Only ≈ 15/1 S/N	
								7ci			
										Dome T = +15.2°C	
								8ci		7k max ADU	
								9ci			
2800	5"	✓ 6.27	GIV					10ci	std vel	500 ADU sum AVG	
								11ci			
		✓ 6.			G=4900 1800 l/mm	200μ FULL	5010Å	12ci			
3000	5"	✓ 6.77	GV					13ci	std vel		
								14ci			
								15ci		60 comp	
140	5"	✓ 10.5 MAX	F9					16ci	Ecl WUMa		
140								17ci	"	import 80 ADU sum AVG poor bkgnd.	

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pg #2

Emulsion Batches: .....

Date 1992 June 14/15 Observers WxL/Tm .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC08005	Comp							Fe Ar Clear	60sec
8006	EF Dra	18 06 31	+69 44 24	23 01 58					1220
8007	EF Dra	"	"	23 23 15		01 05 E			1200
8008	comp					0			60sec
8009	BIAS(4)								
8010	EF Dra			23 47 45		00 41E			1200
8011	"			00 08 21		00 20E			1200
8012	Comp							Fe Ar Clear	60s
8013	EF Dra			00 34 37					1200
8014	"			00 55 27					1200
8015	comp							Fe Ar Clear	60s
8016	Comp							"	"
8017	V829 Her	16 52.2	35.20	01 34 34					900
8018	"	"	"	01 51 17		2 28 W			94
8019	comp								

Spectr. Temp. ..... Dome Temp./Hum. +13.7°C 55.6% Transparency Conditions ... Fine 248

Focus ... 6.67 ..... nice Lunar eclipse

Spectr. Temp. ..... Dome Temp./Hum. ..... windy. NNW

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		✓		CASS CCD	G=4900 1800l/mm	200μ Full	5010Å	~~18ct~~			
145	5"	10.5 may	F9					19ci	Ecl WUMa		
166								20ci	"		
								18ci			
								1ci			
188	5"							~~21ct~~		At max now	
170	5"							21ci			
								~~22~~ci			
150								23ci			
143								24ci			
								22ci			
								25ci			
195	4"	✓ 10.1 val	GO					26ci	Ecl WUMa		
187								27ci			
								28ci			

249 pg #3

Date 1997 June 14/15 Observers W+L/Tg

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCO 8020	BIAS(4)								
8021	Comp							FeAr Clear	60sec
8022	HD154417	17 00 12	+00 51	02 27 09		~~W~~			
8023	Comp							FeAr Clear	60sec
8024	"							"	"
8025	HD187691	19 46 12	+10 10	02 35 58		00 07W			240
8026	Comp							FeAr Clear	
CCO 8027 — 8029	FLATS x 3					00 00	+10°	TUNG A=1/2	8sec
8030 8031	Focus Test					00 00	+35°	FeAr Clear	10/15

Spectr. Temp. ..... Dome Temp./Hum. +12.2°C 56% Transparency Conditions ... Some cloud 250

Focus ... 6.6.7 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... 480 0 50 1024 41 CCDFmT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CHES CCD		200u	5010Å	1c;			
								~~29c;~~			
2749	4"	6.01	GOV					30c;	std vel	~ 4 Å/Pix sum Avg	
								~~29c;~~			
								29c;			
4880	3-8"	511	F8V					30c;	std vel		
								31c;			
								~~32c;~~ 33c; 34c;			
	Temp +12.8°C					200u Full	5010Å	3c; 4c;	(360 0 12 1024 40 1) CCDFmT	stellar. VUV sl Blue shift	
					All to perseus & WORM						

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pg #1 Mon-Tues

Emulsion Batches: .....

Date 1992 June 15/16.. Observers .W.+..J.T.. .....

Header Times 7secs ahead of W.W.V. Time.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Spectr. Mir
cc08032 8033	Focus Test ✓					0 0	+40°	FeAr Clear	20/30	
8034	BIAS(4)									
8035	comp							FeAr Clear	60s	
8036	HD 133 787	14 0801 (1900 14 9 35)	+19 2937	20 5539		0010W			12s	5429
8037	comp	14 04·6 (1900)	+19 56					FeAr Clear	60s	
8038	comp							4	4	
8039	BO CVn	13 5458	+41 1819	21 0947					720	316
8040	BO CVn	13 5458	+41 1819	21 22 28					760	319
8041	comp							FeAr		
8042	BO CVn			21 41 25		1 16 W			722	346
8043	"			21 54 10					720	231
8044	"			22 06 42					720	293
8045	comp									
8046	BO CVn			22 23 10					720	293
8047	"			22 35 32					"	293

Spectr. Temp. ..... Dome Temp./Hum. +16.0°C 47.2% Transparency Conditions ... Sl. cloudy (thin) 252

Focus ... 6.72 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CLAmBDH 90CGMin ECOT -> -100°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	6.72	T = +16.0°C		CASS CCD	G=4980* 1800 l/mm	20μ FULL	5010 H	3ci 4ci	WS1 Red @ 875 g/mm	* set by hand to 46.2°	
								1ci			
								5ci			
5439	1-2"	V 5.25	M2 Lib					6ci	std	Also for Tel Collimation	
								7ci			
								~~8ci~~			
316	2"	V 9.48	FOV					~~10ci~~	Ecl WUMa		
319								~~9ci~~			
								8ci			
346								11ci			
271								12ci			
293								13ci			
								14ci			
293								15ci		280 ADU Sum Avg above bkgnd for 4 cols	
293								16ci			

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pg#2

Emulsion Batches:
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Date 1992 June 15/16 ..... Observers W.K./J.H. .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
CC08048	BO CVn	13 54 58	41 18 19	22 47 55					720	2[illegible]
8049	comp							FeAr Clear	60sec	
8050	BO CVn			23 03 50					720	281
8051	"			23 16 13		02 50 W			721	300
8052	"			23 28 58		03 04W			720	213
8053	comp							FeAr Clear	60sec	~~203~~
8054	Bias(4)									
8055	BO CVn			23 46 32					720	263
8056	"			23 59 25					720	245
8057	"			00 13 11		03 50W			801	240
8058	Comp							FeAr Clear	60sec	
8059	BO CVn			00 29 56					840	149
8060	"			00 46 18					880	127
8061	Comp							FeAr Clear	60sec	
8062	Comp for HP154417							"	"	

Spectr. Temp. ..... Dome Temp./Hum. 14.4°C : 60% Transparency Conditions ..PaRT. Cloudy..... 254

Focus .....6.72.....

Spectr. Temp. ..... Dome Temp./Hum. 13.0°C ...53% 40 CGAin 480 0 50 1024 4 1 CCDFmT

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
~~267~~	2"	9.48	FO	CASS CCD	G=4900* 1800 l/mm	200μ Full	5010	17ci	Ecl. WUMa	*Grating T.H set to 46.0° by hand at start of night.	
								18ci			
281								19ci			
300								20ci			
213	3"							21ci		in cloud	
~~203~~								22ci			
								~~23ci~~			
203								23ci			
245								24ci			
240	3"							25ci			
								26ci			
149								27ci		cloudy again	
127	2-3"							28ci		VERY cloudy	
								29ci			
								30ci			

255 pg #3

Emulsion Batches:

Date 1992 JUNE 15/16 Observers ... Wxh / Tm

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
C08063	HD154417	17 00.12	+00 51	010920		01 34 W			480
8064	Comp							Fe Ar Cl	60sec
8065	BIAS(4)								
8066	FLAT					01 W	+31°	TUNG A=½	30sec
'67	"							"	
68	"							"	

Spectr. Temp. ..... Dome Temp./Hum. +13.3°C 53.3% Transparency Conditions ... Cloudy .....

Focus ..... 6.72 .....

Spectr. Temp. ..... Dome Temp./Hum. +13.5°C 53%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1230	2"	V 60	GOU	CASS CCD	1800 l/mm	200μ Full	5010A	31c;	Std Vel	−17.4 ± 3 Km/sec [Ar] Thick cloud → medium	
								32c;			
								33c;			
								33;		10K MAX ADU	
								34c;		CCDT = −101.7°C	
								35c;			
			All Backed up to Perseus & WORM								

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pg#1 Tues - wed

Date 1992 June 16/17. Observers [Holy] / T.H. 24" dome

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc08069 8070	Focus Test	Comp /	Stellar Hartman posns			0 0	+49°	FeAr Clear	20/25
8071	BIHS(4)			~2040					
8072	Comp							FeAr Clear	90sec
8073	HD123782	14 04.6	+49 56	204514		0005W			126
807A	Comp for HD123782							FeAr Clear	90sec
8075	HD87901	10 03 03	+12 27	205527					50sec
8076	"	"	"	205652					60sec
8077	Comp (only comp for HD87901)							FeAr Clear	90sec
8078 8079	FLATS x2					0420W	+12 27	Tung A-1/2	12s
8080	Comp							FeAr Clear	90sec
8081	HD19433	20 38 36	+75 14	21 21 26		0544E	exp - Readout		445sec
8082	"			21 34 16			exp Readout		420sec
8083	"			21 47 12			Batch →		420s
808A	"			21 49 30					420s
8085	"			21 56 48					7

Spectr. Temp. ..... Dome Temp./Hum. 16.5°C ... 43.9% Transparency Conditions .. Fine 258

Focus 6.72 → ~~6.75~~ 6.65

Spectr. Temp. ..... Dome Temp./Hum. .....

Fans on early as they are on Wednesdays

90 CGAin CCDT → -100°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
161°C Set		~~6.70~~ 6.65		CASS CCD	G-5530 1800l/m/mm	200μ FULL	5880Å	3c; 4c;	3600 12 1024	40 1 CCDFMT VVVV s/Ref = 340 pix ±	
								1c,	~~480~~ 0 50	1024 4 1 CCDFMT	
								5c;	std vel	Also Tel normalization star.	
4000	2"	5.25 V	m2 III ab					6c;	std vel		
								~~7c;~~			
25K		1.36 V	B7V					~~8c;~~	Telluric Std	7 K max	
31K								8c;	"	AIRMASS 2.02	
								7c;			
								~~9c;~~		12.4 K max	
								~~10c;~~			
								11c;	Hdg pgm	encoder 05 +00 00 50 Dec → +00 00 18	
1414		7.3-7.7 G5 V +K						12c;		AIRMASS = 1.45	
1470	3"							13c;		@ 05 2A East	
1580											
1620										3000 ADU SUM AVG Above Background counts	

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Pg #2 Tue-wed

Date 1992 June 16/17 Observers Hdg./J.T.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp	Exp Mtr.
CCD8086	BIAS (4)									
8087	FLAT							TUNG A-V2	10sec	
8088	Comp							FEAR CLEAR	90sec	
8089	HD197433	20 38.6	+75 14	22 12 15		04 54E			420	1500
8090	"	"	"	22 20 04					420	1470
8091	"	"	"	22 27 55		04 38E			420	1440
8092	"			22 35 13						1530
8093	"			22 42 31						1460
8094	"			22 50 31	57 27				420	1410
8095	"			22 58 09		04 07E			432	1350
8096	Comp							FEAR CLEAR	90s	
8097	FLAT							TUNG A-V2	10sec	
8098	BIAS (4)									
8099	HD197433	20 38.6	+75 14	23 13 56					420	1410
8100	"			23 21 14					420	1350

Spectr. Temp. ..... Dome Temp./Hum. 14.7°C ..... 44% Transparency Conditions ... Fair in NORTH 260

Focus ..... 6.65 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CLAMBOU

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm	200μ Full Length					
							5880Å	14ci		12.4 K MAX ADU	
								15ci			
1500	2-3"	7.3-7.7	G5V	+K0V+K5V				16ci	Hdg pgm	Using (exp Reload)	
1470								17ci			
1440	2"							~~18ci~~		using [Repeat SSTAR80.BAT 3]	
1500											
1460								18ci			
1460											
1400								19ci			
								20ci			
								21ci			
								1ci		Dome T +14.2°C	
1200								~~22~~ ci			
1200											

261
pg #3 Tues Wed

Date 1992 JUNE 16/17. Observers Hdg. Tn. MKI.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CCD8101	HD197433	20 38·6	+75 14	23:28:32					420
8102				23:36:19					420
8103				43:36					420
8104				50:54					420
8105				235848					420
8106				00:06:05					420
8107				13:23					420
8108	BIAS(4)								
8109	FLAT							TUNG A=1/2 Fear Clear	10s
8110	Comp								
8111	HD197433	20 38·6	+75 14	00 2825		02 37E			420
8112				00 3543					420
8113				00 4335		02 22E			420
8114				00 5052					420
8115				00 5810					420

Spectr. Temp. ..... Dome Temp./Hum. 14.0°C ... 47% Transparency Conditions ... P.A.R.T. cloudy ... 262

Focus ... 6.65 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CLIMBOA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1100.		7.3 -7.7	G5V	CASS CCD	1800 ln/mm	200u Full	5880Å		Hdy pgm		
900											
890.											
900.											
840.											
560										Very cloudy	
	3"-4"							22c.			
								1c.		Dome T = +13.4°C	
								23c.		11K MAX	
								24c.			
380	2"-3"							~~25c.~~		Repeat ×2	
690								25c.		cloud	
655										Repeat × 3 1.22A AIRMASS	
540											
1140								26c.			

763 Pg #4

Emulsion Batches: .....

Date 1992 June 16/17 Observers Hdg./Tan/...Maki.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC08116	HD197433	20 38 36	+75 14 00	01 06 08					420
8117	"			01 13 26		01 57E			420
8118	"			01 20 54					421
8119	BIAS(4)								
8120	Comp			01 29 26				FeAr Clear	90 sec
8121	Flat							Tung A=1/2	10 sec
8122	HD 197433	*		01 34 12					420 sec
8123	"			01 41 30					
8124	"			01 49 00					
8125	"			01 56 18					
8126	"			02 03 36					
8127	"			02 ?					
8128	"			02 18 48					
8129	BIAS(4)								
8130	Flat			02 27 18				Tung A=1/2	10 sec
8131	Comp							FeAr Clear	90 sec

Spectr. Temp. ..... Dome Temp./Hum. 41.3°c 50% Transparency Conditions .PART. 7 mos 14 cloudy 264

Focus .... 6.65 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
960	3"			CASS CCD	G 5530 1800 l/mm	200μ	5880Å		Hdy pgm		
945											
1020								27ci			
								1ci			
10590								28ci			
								29ci		11247 MAX	
680								30ci			
830											
715											
770											
900											
776											
480											
								1ci			
								31ci		11K MAX	
10160								32ci			

265 pg. #5

Date 1992 June 16/17 Observers Hdy / Tn

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc 0 8132 fks	HD 197433	20 38.6	+75° 14′	02 32 06					420
8133				02 39 24					"
8134				02 46 47					"
8135				02 54 01					"
8136				03 01 44					"
8137				03 09 02					"
8138				03 16 40					"
8139	BIAS (4)								
8140	Comp			03 25 50				Fe Ar Clear	90
8141	Flat							Tung A9/2	10
8142	Dark			03 31 23					225
Fm 0 447	HD ~~201750~~ 197047	~~21 06.5~~ ~~20 23.4~~	+36 24	03 44		00 00	67 msec Int	"H" mode	
8143	Dark			03 48 13					225
8144	HD 177724	19 00.49	+13 43	03 54 11		02 19 W			1865
8145	"	"	"	03 58 38					1535

Spectr. Temp. ..... Dome Temp./Hum. +12.8 / 50.2% Transparency Conditions heavy cirrus and haze 266

Focus 6.65

Spectr. Temp. ..... Dome Temp./Hum. +12.8°C 51% CLAMBOX

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
450				CASS CCD	1800 l/mm	200u Full	5880	33ci	Hdy pgm. VWC&P	Repeat x 4	
≈500	3"										
440											
260											
390											
400	3-4"										
405											
10274								34ci			
								35ci		10443 MAX	
								~~35ci~~	7ci		
4 frames		7.6 V	F2 V						Seeing Test	Dome West (no wind)	
								7ci			
20,100	4"	299 V	A0 V nn					8ci	Telluric Std	1.348 Airmass	
20,300									"		

267 #6

Emulsion Batches: .....

Date 1992 June 16/17 Observers Holy J.T.n ....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCO8146	FLAT							T49G A=1.2	10s
8147	FLAT								
8148	BIAS (4)								
8149	Comp							FeAr Clear	90sec

Spectr. Temp. ..... Dome Temp./Hum. +12.9 / 51.5% Transparency Conditions heavy mist and haze

Focus .....

Spectr. Temp. ..... Dome Temp./Hum. .....

$T_{CCD} = -100.4\,^{\circ}C$

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					G=5530	200μ Full	5880Å	2Ri		11975 MAX	
					Hll to worm ε Perseus.						

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p. 1

Date 1.9.92..June 7.1.18. Observers ..Hdy..Tn.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
Fm00448 ABCD	HD128718	14 3324	+48 3900		20 44	00 24E	+4813	"N" mode	67msec Ent
CCO 8150 8151	Focus Test				21 09	0000	"	FeAr Clear	20/25
8152	BIAS(4)								
8154	FLAT FOR	HD197433						TUNG A=1/4	28sec
8153	Comp							FeAr Clear	60sec
8155	HD197433			21 2334					422
8156	"			21 3313					540
8157	"			21 4234					425
8158	"			21 5007					455
8159	"			21 5801					420
8160	BIAS(4)								
8161	FLAT			22 07 29				TUNG A=1/4	28sec
8162	Comp							FeAr Clear	60sec
8163	Comp							FeAr Clear	60sec
8164	HD177724	19 0049	+1343						

Spectr. Temp. ..... Dome Temp./Hum. +22°C 67% Transparency Conditions Hazy 270

Focus ... 6.58 ..... Tel encoders normalized 1st on HD123782

Spectr. Temp. ..... Dome Temp./Hum. ..... CCOT → -100°C 90CGain No Fans

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
4 frames	OK	6.7	I-2			200u Full	To Lower R of slit		Seeing test	Dome NW gusty 5 w wind	
T= 21.7°C		6.58		CASS CCD	G-6020 1800 l/mm	200u	6563Å	3ci 4ci		Comp Right on 276-284 pixel #'s	
								1ci		480 0 → 30 1024 4 1 ccd Fmt	
								6ci			
								5ci			
365	3"	7.3 - 7.7	G5V	+K0V+K5V				7ci	Hdy pgm	1.455 Airmass ↓ Hazy here	
390								8ci			
300								~~9ci~~			
380								~~9ci~~		(50/1 SN) For 5 cols 800 ADU sum ADU above bkgnd	
800 sum of 2?								9ci			
								6ci		13869	
8172								5ci			
15000		2.99	A0V nn					10ci	Telluric Std	X = 1.61	

27½ p. 2

Emulsion Batches:

Date 1992 June 17/18 Observers Hdy. / Tn

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc08165.fits	HD 177724			22 26 00					41/sec
8166	FLAT							Tung A=1/4	
8167	BIAS(4)			22 35 24					
1992 June 18									
8168	BIAS(4)			[illegible]	19 35 34				
8169	FLAT			[illegible] 19 41 30		DRIVE OFF		Tung A=1/4	23sec
8170	23 sec FLAT + DARK	AFTERWARD		19 45 07	19 55 07			Tung A=1/4	23sec
8171	12 sec FLAT + DARK			20 04 37	20			Tung A=1/4	12sec
8172	BIAS(4)			20 27 51					

Spectr. Temp. ..... Dome Temp./Hum. 22.4°C 67.7%H Transparency Conditions. VERY. Hazy. - some clouds 272

Focus .... 6.58 ..... Thunderstorm advancing

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
8100	4"/10"			CASS CCD	G6020	200μ	6563Å	11c	Telluric Std	X = 1.56	
										12257 MAX	
				All To Perseus Cworm							
								1c	TESTS		
					G=6020 1800 l/mm	200μ	6563Å	5c		14222 MAX	SAME FOCUS AS LAST NIGHT DAYTIME, BUT SWITCH IS CLOSED
577 sec DARK		(ONE EXPOSURE)						6c		expose Tung for 23 sec then cshut, then readout	
1020 sec DARK		"						7c		COLLECTING COSMIC RAYS ON TOP OF A FLAT	

273
pg. 1

22/23

Date .. June 23/24.92 Observers .. Holy./For./Bhrm...

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.
cc Ø8173	FOCUS TEST	14 04 36	+49 56 00	20 21 18						
cc Ø8174	FOCUS TEST									
Fm 00449 ABCD	HD 128718	14 33 24	+48 39 00							
CCD8175	BIAS(4)			21 23 35						
8176	COMP							FeAr Clear	60 sec	
8177	HD 177724	19 00 49	+13 43	21 32 58				[illegible]	115 sec	15000
8178	"			21 35 31					176 sec	25600
8179 8180	FLAT FLAT							Tung A-1/4	28 sec	
8181	BIAS(4)			21 43						
8182	FLAT							Tung A-1/4	28 sec	
8183	COMP							FeAr Clear	60 sec	7169
8184	HD 197433	20 38.6	+75° 14′	21 58 42					420 sec	1320
8185				22 06 00					"	1220
8186				22 13 19					"	360
8187				22 20 38					"	1549
8188				22 27 56					"	140

Spectr. Temp. ..... Dome Temp./Hum. 12.7°C/44.7% Transparency Conditions ..... CLEAR + SMALL AMOUNT OF CIRRUS...

Focus ..... 6.65 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS ON! NORMALIZED ON HD123782 90 CCAIN

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					G=6020 1800	200 μ	λ=6563Å			480 0 30 1024 4 1	ccdfmt
		v 6.7	F2								
										480 050 1024 41	
										TIME ~30 SEC OFF	
15000										TME SET TO WWV	
20600											
										11690 MAX 11449 MAX	
										13666 MAX ADU	
7969											
1320									Hdy		
1220											
1360											
1540											
1640											

275 pg. 2

22/23

Date June ~~23/24~~ 92 Observers ..Hely./Fox./Bhrm...

Emulsion Batches:

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Spectr. Ter
Focus....
Spectr. Ter

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr
8189	HD 197433			22 35 15					420sec	1475
8190	"			22 42 34	22 49 34				"	1380
8191	COMP			22 50 53				FeAr Clear	60sec	
8192	FLAT							Tung A=14	28sec	
8193	BIAS(4)			22 53 46						
8194	HD 197433	20 38.6	+75 14	22 55 10					420s	1465
8195	"			23 02 29					"	1490
8196	"			23 09 48					"	1400
8197	"			23 17 06					"	1410
8198	"			23 24 25					"	1420
8199	"			23 31 44					"	1566
8200	"			23 39 03					"	1520
8201	Comp							FeAr clear	60	
8202	Flat							Tung A=14	28	
8203	Bias(4)									

Spectr. Temp. ..... Dome Temp./Hum. 9.8°C/47.7% Transparency Conditions ..... CLEAR 276

Focus ..... 6.6.5 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS ON!

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1445											
1380											
1465											
1490											
1400											
1410									Hdy		
1420											
1566											
1520											

277 pg 3

Date .. ~~JNE 23/24 92~~ 22/23 Observers ... Hdy./F.Br./Bh.r.m.

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr
8204	HD 197433	20 38.6	+75 14	23 52 39					420s	1500
8205	"			23 59 57					"	1150
8206	"			00 07 16					"	1670
8207	"			00 14 34					"	1599
8208	"			00 21 53					"	1350
8209	"			00 29 12					"	1462
8210	"			00 36 31					"	1550
8211	Bias(4)									
8212	Flat							Tung Δ=Fr	28s	
8213	Comp							Filter Comp	60s	
8214	HD 197433			00 48 57					420s	1270
8215	"			00 56 16					"	1160
8216	"			01 03 35					"	1180
8217	"			01 10 54					"	1180
8218	"			01 18 13					"	1230
8219	"			01 25 32					"	1225

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .....Clear..... 278

Focus .....6.65.....

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS ON!

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1560				CSS CCD	1800 α=6020	200 μ			λ=6563		
1450										Done T = 9.60 / Avg = 46.99	
1270											
1349										AirMass = 1.2269	
1450											
1462										$\Delta\alpha$ = 0 1 4 $\Delta\delta$ = 0 1 39	
1550											
1770	2"-3"									AirMass = 1.2086	
1660											
1480									Hdy		
1600											
1230											
1625											

*279
#4

Date .. June 22/23 Observers ... Hdy. Flr.

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
8220	HD 197433			01 33 51					420s	1775
8221	Bias (4)									
8222	Comp							Fe Ar Cu	60s	
8223	Flat							Tung ND 1/4	28s	
8224	HD 197433	20 38.6	+75 14	01 45 07					120s	1755
8225	"			01 52 26					"	1800
8226	"			01 59 45					"	1760
8227	"			02 07 04					"	1780
8228	"			02 14 23					"	1800
8229	"			02 21 42					"	1775
8230	"			02 29 01					"	1780
8231	Bias (4)									
8232	Flat							Tung ND 1/4	28s	
8233	Comp							Fe Ar Cu	60s	

Spectr. Temp. ..... Dome Temp./Hum. ...9.72/48% Transparency Conditions .....Clear..... 280

Focus .....6.65.....

Spectr. Temp. ..... Dome Temp./Hum. ..... Fans ON.

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1775											
1735											
1800											
1560									Hdy		
1780											
1800											
1375											
1480											

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#5 22123

Date ..J.N.E. [redacted]2 Observers . Hdy F.Dr.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.
8234	HD197433	20 38.6	+75 14	02 42 47					420s	1600
8235	"			02 50 05					"	1490
8236	"			02 57 24					"	1490
8237	"			03 04 43					"	1160
8238	"			03 12 02					"	1350
8239	"			03 19 21					"	1600
8240	"			03 26 39					"	1650
8241	Bias (4)									
8242	Comp							Fc Dr Cu	60s	
8243	Fest							Tung D=¼	28s	
8244	Bias (4)									
8245	~~Comp~~ Fest							D=¼ Tung	28s	
8246	Comp							Fc Dr Cu	60s	
8247	HD177724	19 00 49	13 43 00	03 46 09					87	
8248	"			03 48 30					94	

Spectr. Temp. ..... Dome Temp./Hum. 9.2°C / 53.8% Transparency Conditions ..... CLEAR 282

Focus ..... 6.65 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS ON!

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1600					1800 a=6020	200 μ			← λ=6563	AIRMASS = 1.3167	
1490									Hdy		
1490											
1460											
1340											
1600											
1450											
20K									TELLURIC STD		
22K									TELLURIC STD. 10 K MAX		

283

Emulsion Batches:

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Date ... June 22/23-92 Observers ... Hdy. Fbr. .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
8249	Comp /							Fe Ar Cu	60
8250	Fest (4017724)							Tung A=14	28s
8251	Bias								

Spectr. Temp. ..... Dome Temp./Hum. ... 8.8°C/58% Transparency Conditions 284

Focus ..... 6.6.5 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
						All to Perseus & WORM.					

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Wed–Thurs

Date JUNE 24/25/92 Observers Hdy./Flor./Tu

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
8252	Focus Tst					0	+40°	FeAr Clear		
8253	Focus Tst.					0		"		
FM 00450 (8)	HD 128718	14 33.4	+48 39	20 35		00 00	+48 39	'N' mode	4 frames	47x47 pg
8254	BIAS (4)			20 42						
8255.ffs	Comp							FeAr Clear	70sec	12000
8256	HD 177724	19 00 49	+13 43	20 48 39		0415 E			316sec	34K
8257	FLAT at this posn							Tung Ap=1/2	13 sec	
8258	FLAT							Tung A=1/2	13sec	
8259	COMP							FeAr Clear	70sec	
8260	HD 197433	20 38.6	75 14	21 08 26					420sec	805
8261	"			21 15 45					"	1130
8262	"			21 23 04	21 30 04				"	1530
8263	"			21 30 37		0504E			420sec	1550
8264	"			21 37 55					"	1620
8265	"			21 45 13					"	1700
8266	"			21 52 31	21 59 31				"	1730

Spectr. Temp. ..... Dome Temp./Hum. +13.7°C ... 70% Transparency Conditions ..... CLEAR, CIRRUS IN SOUTH 296
HUMIDITY INCREASING

Focus 6.68

Spectr. Temp. ..... Dome Temp./Hum. ..... CLAMBDA FANS ON! ccd temp = −100.4°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G-5505 1800 l/mm	200u Full Length	5840B		Focus Test	480 0 50 1024 4 1	ccd Fnt
			HD 123782		Tel Normalization Star		(Also apparent dbl image (N 5 Sec))		"		
47x47 pixels		V 67	F2	note apparent dbl image (Optical Distortion)?		200u Center Right of Slit			Seeing Test	Very Light N Wind [redacted] Dome West	
								1ci		Dome T = +13.5°C	
12000								3ci			
34K		V 2.99	AQV nm					5ci	Telluric Std.	MAX 12,406 ADU	
								4ci		12,887 MAX	
										16242 MAX ! OK.	
1505	2-3"	V=7.3 - 7.7	G5V +N7V					6ci	Hdg pgm	ENCODERS +0 0 54 RA +0 0 45 DEC	
1680								6ci	"		
1530								6ci	"		
1550								7ci	"		
1620	2"								"		
1600									"		
1650											

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pg #2

Date JUNE 24/25, 1992 Observers Hdy/Flor/Tn

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
8267	COMP							FeAr Clear	70 sec	8923
8268	FLAT							Tung A=1/2	13sec	
8269	BIAS(4)			22 03 40						
8270	Comp [do not use; grating may have moved]							FeAr Clear	70sec	
8271	FLAT								13sec	
8272	Comp (use)							FeAr Clear	70sec	
8273	HD 197433			22 19 39					420sec	1390
8274	"			22 26					"	1280
8275				22 34 15		0400E			"	1240
8276				22 41 53					"	1210
8277				22 48 51					"	1210
8278				22 56 10					"	1240
8279				23 03 28	23 10 28	0330E			"	1340
8280	Comp							FeAr Clear	70sec	
8281	BIAS(4)									
8282	FLAT						A=1/0	TUNG	11 sec	13sec

Spectr. Temp. ..... Dome Temp./Hum. +12.5°C 72.4% Transparency Conditions .....

Focus ..... 6.68 .....

Spectr. Temp. ..... Dome Temp./Hum. +12.3°C 79.6%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
8923					1800 l/mm G=5505		5880Å	8c;			
								9c;		12060	
								1c;			
					* 1800 l/mm G=5530		* 5890Å	10c;		* Grating Angle changed to get NaD Lines centered	
								11c;		12279 MAX ADU/pixel	
								12c;	←	GRATING JIGGLED	
1390	2"							13c;	Hdy pgm		
1280											
1240											
1210											
1210										GUIDE CAMERA OFF	
1240										BACK ON	
1340											
								14c;			
13 sec Flat came close to saturation :. 11 secs close								15c;			

289 pg#3 wed-Thurs Hdy To 24" for Photometry now

Date 1992 JUNE 24/25 Observers Hdy/Tn./Fbr.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp Mtr.
CC08283	HD197433	20 38 36	+75 14	23 18 25		03 17E			420s	1070
8284	"			23 25 43					"	1190
8285	"			23 33 01					"	1315
8286	"			23 40 19					"	1025
8287	"			23 47 52		02 49E			255s	350
8288	FLAT								11 sec	
8289	COMP									
8290	BIAS(4)									
8291	HD177724	19 00 49	+13 43	00 36 33	01 01 ...	00 07E			1456 sec	2108Z
8292	BIAS(4)	before HD177724		00 35						
8293	COMP			01 05 14				FeAr Clear	70sec	
8294	FLAT							Tung A=1/2	11 sec	
8295	BIAS(4)			01 09 16				~~FeAr Clear~~	~~70 sec~~	
8296	COMP							FeAr Clear	70SEC	
8297	FLAT							Tung A=1/2	11sec	
8298	BIAS(4)			01 41						

Spectr. Temp. ..... Dome Temp./Hum. +12.1°C ... 81.2%H Transparency Conditions ... some cloud ... 290

Focus .... 6.68 ..... → much cloud

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1070	2-3"	7.3 -7.7	G5 +K	CASS CCD	G-5530 1800l/mm	200μ Full Length	5840Å	~~1Ci~~	Hdg pgm	1.269 Min mass	
1190										thin cloud at times	
1315											
1025								16Ci			
350								17Ci		cloud expose/Readout	
										12.44	
				Backed up to WORM & PERSEUS						Dome T = +11.4°C	
21082	4"	2.99	AO nn					18Ci	Telluric Std	cloud X=1.156	
								1Ci			
								4Ci			
								5Ci		14.3K	
					*~~G-5530~~ 1800 l/m		~~5890~~	~~4Ci~~		Had gone to Hα briefly to try nailing 92	
					G=5525 1800l/mm		5890	4Ci		grating back to 5890Å	
										11.4K	

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Date 1992 June 24/25 Observers Hdy/Tn/Flr

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp	Eye Mtr
8299	HD 197433			01 42 52					420sec	740
8300	"			01 50 09					"	860
8301	"			01 58 00						
8302	"			02 05 18						313
8303	"			02 12 44					626sec	319
8304	"			02 24 38					355	88
8305	BIAS(4)									
8306	FLAT							Tung A=1/2	12 sec	
8307	COMP							FeAr Clear	70sec	
8308	COMP							FeAr Clear	60sec	
8309	Nova Cyg	$20^h\ 27^m\ 43^s$	$+52°17'39''$	03 07 26	03 14				433sec	374
8310	COMP							FeAr Clear	60sec	
8311	FLAT							A=V4	25sec	
8312	BIAS(4)									
8313	Comp							FeAr Clear	60sec	

Spectr. Temp. ..... Dome Temp./Hum. +12.1°C [redacted] Transparency Conditions heavy cirrus clearing 292
then more cloud

Focus ....6.68.....

Spectr. Temp. ..... Dome Temp./Hum. +12.0°C ... 77.2% 79%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
740	3"-4"					200μ Full Length	5890Å	6ci	Hdy pgm		
860											
[redacted]296											
313											
319											
98											
										12368 ADU	
										TOP UP by 03 EST	
					G=6020	000μ Full	6563Å	4ci	Nova Cyg 92		
574								5ci	↓	13.5K MAX	
								1ci			
								7ci		10790 ADU	
								1ci			
								8ci			

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Date 1992 June 24/25 Observers Hdy/Tn/Fbs

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CC08314	HD177724	19 00 49	+13 43	032547		2 24 W			182
8315	Comp							FeAr Clear	60
8316	FLAT							Tung A=1%	25 sec
8317	BIAS(4)								
1992	June 25/26 Hdy								
8318	BIAS(1)			18h					

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ... Mostly Clouds ... 294

Focus ... 6.68 .....

Spectr. Temp. ..... Dome Temp./Hum. 11.6°C ... 82.3% H

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
192				C455 CCD	G=6020 1800 l/mm	200μ	6563Å	9ci	Telluric Std	10949 ADU MAX	
60											
25										11123 ADU MAX	
					All to Pease & Work.					$T_{CCD} = -4.5$	

295

#1 Thurs FTi

Date ... June 25/26-92 Observers ... I. Hdy J. Tn./F. Ebr. ...

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
8318	Bias (1)								
8319	Bias (1)								
8320	Focus (Comp)							FeAr Clear	60sec
8321	Focus (Star)								
FM00451(8/6)	HD144579	16 01 30	+39 25 36	~21 30		00 30E	+39 11	"N" mode	
8322	Bias (4)								
8323	Comp							FeAr Clear	60sec
8324	Flat							Tung A=1/4	
8325	HD177724	19 00 49	+13 43	21 48 40		03 11E			295s
8326	Comp							FeAr Clear	60sec
8327	Comp							"	"
8328	FLAT							Tung A=1/4	27sec
8329	BIAS (4)								
8330	HD197433	20 38 36	+75 14	~~22 19 04~~					
8331	"	"	"	~~23 14 40~~ 22 40	~~22 19 30~~				
8332	"		"	23 24 40					

Spectr. Temp. ..... Dome Temp./Hum. 14.9°C/78.8% Transparency Conditions .... Hazy... / Part. Cloudy...
Focus .....6.6.8..... Topup from ambient Temp tonight
Spectr. Temp. ..... Dome Temp./Hum. ..... BS5763 Tel Normalization star No Fans tonight

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G6020 1800l/mm	200u FULL	6563Å				
		V 666	GSV								
47×47 pixels		67nsec int				200u (Lower Right view below slit)				DOME SOUTHWEST	
								1ci		~~ESO~~ Dome T = +4.5°C	
								3ci			
								~~4ci~~		13,000 AU max	
								5ci	Tektronix St	10 k max	
								4ci		12.5 k AU max	
630											
~~1290~~								6ci	Holy Cow	1396 A&A mass	
660											
660											

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#2

Emulsion Batches:
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.....

Date . JUNE 25/26-92 Observers . Hdy./Ta./Fbr.....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
8333	HD 197433	20 38 36	+75 14	223247		0357.5E			420s
8334	"			224005					"
8335	"			224723					"
8336	"			225441					"
8337	FLAT							Thorium A=1m	27s
8338	~~Hg~~ Ne Comp							T=Ar Comp	60s
8339	Bias (4)								
8340	HD197433	20 38 36	+75 14	23 0722		0323E			420s
8341				23 1439					"
8342				23 2157					"
8343				23 2915					"
8344				23 3633 ~~3743~~					
8345				23 ~~43~~ 50					
8346				23 5108					
8347	Comp							FLAT CLEAR	60s

Spectr. Te
Focus....
Spectr. Te
Sec Mtr

Spectr. Temp. ..... Dome Temp./Hum. 14.6°C/77.4% Transparency Conditions. Hazy .....

Focus ..... 6.6.8 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS OFF!

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
800		✓ 7.3 – 7.7	G5V + K7V	CCD CASS	G-6020 1800l/mm	200μ Full	6563Å	Gi	Hdy pgm		
820											
800											
1075											
										12.3K 4D 1114x	
										Dome T= +14.3°C	
1290	2"							Gi	Hdy pgm		
1350	1½"									broad cosmic Ray? odd emission @ 6510Å	
1475	"										
1470	"										
~~1470~~											
1450											
1500											
								Ji			

299 pg #3 → on 24" (photometry)

Date 1992 June 25/26 Observers Hdg Fer Th

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCO 8348	FLAT							TUNG A=1/4	25s
8349	BIAS(4)								
8350	HD197433	20 38 36	+75 14 00	00 04 22					42s
8351	"			00 20 48			Rs part × 4		420s
8352	"			00 28 06					"
8353	"			00 35 24		01 55E			"
8354	"			00 42 43		01			"
8355	"			60 50 07					"
8356	BIAS(4)								
8357	FLAT							TUNG A=1/4	25s
8358	COMP							FLAT Clear	60s
8359	HD197433			01 02 15					420
8360	"			01 09 33					"
8361	"			01 16 51					"
8362	"			01 24 09		01 13E			"
8363	"			01 31 27		01 06E			"

Spectr. Temp. ..... Dome Temp./Hum. +14°C 72% Transparency Conditions Some clouds / Hazy 300

Focus ... 6.68 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CLAMBDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CHSS CCD	1800 l/mm	200μ FULL	6563Å	8ci		11K max	
		V									
1100	2"	7.3 7.7						~~9ci~~	Hdy pgn	≈ 2800 ADU Signal AVG of 5 cols above bkgnd	
1090								~~9ci~~			
1100											
1163											
1100								9ci			
943											
										Dome T = +13.5°C	
1020	2-3"							6ci			
850	3"										
650											
800										Dmass = 1.1852.	
950											

30/pg#4

Emulsion Batches: .....

Date ..June 25/26-97 Observers .Hdy.(24") T./Fox... .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc8364	HD197433			01 38 45					420s
8365	"			01 46 02		00 44E			"
8366	BIAS(4)								
8367	Comp							Fea Clear	60sec
8368	FLAT							T.UNG A=1/4	25sec
8369	HD197433	20 38 36	+75 14	01 59 06					423
8370	"			02 15 01					420
8371	"			02 22 19					"
8372	"			02 29 36					"
8373	"			02 36 54					"
8374	"			02 44 27		00 15W	Exp/Readout		"
8375	"			02 51 54			"		"
8376	BIAS(4)								
8377	FLAT							T.UNG A=1/4	29sec
8378	Comp							Fea Clear	60sec

302

Spectr. Temp. ..... Dome Temp./Hum. ....72.79%/14°C Transparency Conditions . Hazy ... cloud scattering.

Focus .....6..6.8.....

Spectr. Temp. ..... Dome Temp./Hum. ..... 90CGain CCDT = -104.5°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
910	3"	73 -71		CASS CCD	6020 G 1800 l/mm	300u	6563Å				
975								6ci		AirMASS 1.180	
										Dome T = 131°C	
								7ci			
								~~8ci~~		MAX = 105 KADU/pixel	
975								~~11ci~~	Hdg pgm		
990	2"-4"							11ci		Repeat x4	
1	3"-5"										
1665 (combination of 2)											
505											
890								12ci		Cloud at times	
1020	2"-3"							13ci		2700 ADU sum AVG above bkgnd for 5 Cols	
										Dome T = 126°C	
								14ci		MAX = K ADU/pixel	
								15ci			

303 pg #5

Emulsion Batches: .....

Date 1992 JUNE 25/26 Observers Hdg./. Fbr./Tn..... .....

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC08379	HD197433	20 38 36	+75 14	03 09 03					40
8380	"			03 17 06					"
8381	"			03 24 25					"
8382	Bias (4)								
8383	Comp							Fe/Ar Clear	60s
8384	Flat							Tung A: 1/4	28s
8385	Comp							Fe/Ar Clear	60s
8386	HD177724	19 00 49	+13 43	03 42 47		W			150s
8387	Comp							Fe/Ar Clear	60s

Spectr. Temp. ..... Dome Temp./Hum. 12.5°C ... 75% Transparency Conditions .. P.C.A.T. Cloudy 304

Focus ... 6.168 .....

Spectr. Temp. ..... Dome Temp./Hum. 12.4°C ... 77% Solid Cloud at Dawn

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
1230				CHSS CCD	1800/mm	200μ	6563	16i			
930											
700	2"										
								3i			
										10 K MAX	
								17i			
13 K		2.99	407/mm					18i	Telluric Std		
								19i			
				All to Perseus WORM							

305
pg #1

Date 1992 JUNE 26/27 Observers Hdy./T.n.

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC08388 8389	Focus Test	comp/Stellar Hartmann Positions							20/25
8390	BIAS(4)			2026					
FM00452 HDCD	BS5763	1992.5 15 3040	+40 51 30	2045		0035E	+40 51	"N" mode FCAM Clear	67 m Int
CC08391	Comp								60sec
8392	HD177724	190049	+13 43	21 0210		0354E			259
8393	Comp							FCAM Clear	60 sec
8394 8395	FLATS x2	at HD177724 posn						TUNG A=1/2	12sec
8396	BIAS(4)								
8397	FLAT at HD197433 posn							TUNG A=1/2	11sec
8398	BIAS Comp							FCAM Clear	60sec
8399	BIAS(4)								
8400	HD197433	20 3836	+75 14	21 2723		0459E			430 sec
8401				21 3543					420
02				21 4259					11
03				21 5016		0437E			11
04	Comp							FCAM Clear	60sec

Spectr. Temp. ..... Dome Temp./Hum. 15.8°C ..... 83% Transparency Conditions ... Hazy / Part. Cloudy 306

Focus .... 6.68 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CCDT → −100°C 90CGain

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	+5.8°C			CASS CCD	*G-5525 1800l/mm	20μ* FULL	*5890Å exactly			360 0 12 1024 40 1 CCDFast Stellar Hartman .2 pixel Rel	
		V 5.02									
47×47 pixels	4 Frames		K 4.5	new seeing test star checked by Holy as moving two companions visible.					Seeing test	FAINT on EARLY Dome West V Light NW wind 24 Knots	
								5ci			
20K		V 2.99	AOT nm					6ci	Telluric Std	8K MAX ADU/Pixel	
								7ci			
								8ci		12.4K MAX ADU/pixel	
										Dome T = +15.1°C	
								9ci		14.5 MAX ADU/pixel	
								10ci			
								1ci	Holy pgm	Dome T = +15.2°C	
660	3"	V 4.3 7.7	G5V +K0V					11ci	Holy pgm	1.39 AIR MASS	
530								12ci		Repeat ×3 Sequence	
90								4		Lots of Cloud	
75				(Totally a sky spectrum)				4		" " "	
								13ci	Cluster	in a Batch	

307 pg #2

Date 1992 JUNE 26/27 Observers Hdq. I.T.

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC08405	FLAT							TUNG A=1/2	10sec
8406	BIAS(4)								
8407	HD197433	20 38 36	+75 14	22 05 22					305
8408	DARK			22 18 39					225sec
8409	DARK			22 37 31					225sec
8410	DARK			22 57 48					720sec
8411	BIAS(4)								
8412	FLAT							TUNG A=1/2	11sec
8413	Comp							Fltr Clear	60sec
8414	HD197433	20 38 36	+75 14	23 43 28		2 43 E			420
8415	"	"	"	23 50 50					422
8416	"	"	"	23 58 40					420
8417	"	"	"	00 06 35					"
8418	Comp	"	"	00 14 02				Fltr Clear	60sec
8419	BIAS(4)								
8420	FLAT						A=1/2	TUNG	11sec

Spectr. Temp. ..... Dome Temp./Hum. +15.1°C ... 83% H Transparency Conditions .. PART... cloudy 30

Focus .... 6:68 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CLIMEDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
					1800 6/mm	200μ Full	5890Å	14c;			
210								15c;	Hdy pgm	AIRMASS = 1.348 + Cloud	
								16c;		Dome closed Retracted KS	
								16c;		T_{CCD} = -101.8°C	
										Dome closed Dome T = +15.0°C	
								17c;		MAX 14T 60A	
								18c;			
730	3"-5"							19c;	Hdy pgm	1400 RCA SIM Acc. above Dig. Clear in NORTH (Home)	
870								20c;			
860	3"							21c;			
890								22c;			
								24c;		Cloud	
								95c;		12.4 AM MAX	

309 pg #3

Date 1972 June 26/27 Observers ... Hdy J. Tu.....

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
8421	BIAS(4)								
8422	FLAT							Tung A-V2	10sec
8423	Comp			01 40 39				FeHr clear	60sec
8424	HD197433	20 38 36	+75 14	*01 43 07					420s
8425	"			01 49 48		0036E			"
8426	"			01 57 16					"
8427	"			02 04 40					"
8428	"			02 11 56					"
8429	"			02 19 13					"
8430	" ext			02 26 50					"
8431	" ~~ext~~			02 34 06					"
8432	Comp							FeHr Clear	60sec
8433	BIAS(4)								
8434	FLAT							Tung A-V2	10sec
8435	HD197433			02 46 28	~~00 20~~	0020W			420s
8436	"			02 53 46					"

Spectr. Temp. ..... Dome Temp./Hum. +1.4°C ... 80% Transparency Conditions ... semi clear ... 310

Focus ..... 6:68 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CHAMBER

High pressure dry AIR moving in now

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm	200μ Full	5890Å				
								26c;		11496	
6643	~~3~~							57c;			
809	3"4"	V 7.3 -77	G5V +K0V					28c;	Hdypgm	Repeat 3 times STAR NOT ON SLIT UNTIL 014727	
840								"		1.179 AIRMASS	
790								~~28c;~~			
790	4"5"							"		Repeat 3 times	
760								"			
790								28c;			
760								~~29c;~~			
785	3-4"							29c;			
								30c;			
								1c;		Dome T = +13.0°C	
								31c;		10.7 K ADU MAX	
850								32c;		Repeat x 3 1.760 Airmass	
800								32c;			

3M

Pg#4

~24" (photometry of some star)

Date 1992 June 26/27.... Observers Hdy./T.m.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD 8437	HD197433	20 38 36	+75 14	03 01 03		00 35 5W			420s
8436	"			03 08 35					"
8439	"			03 15 53					"
~~8440~~ 8440	"			03 23 15					420
8441	B/AS(4)								
8442	FLAT							TUNG A=1/2	10s
8443	Comp							FoAr CLEAR	60s
8444	Comp for	HD177724						"	"
8445	HD177724	19 00 49	+13 43	03 40 17		2 46 W			3/4
8446	"	"	"	03 47 10					245
8447	B/AS(4)								
8448	Comp							FoAr CLEAR	60s
8449 8451	FLATS x3							TUNG A=1/2	12s ~~30s~~

Spectr. Temp. ..... Dome Temp./Hum. +12.9°C ... 76%H Transparency Conditions ... clearing up .....

Focus ... 6.68 .....

Spectr. Temp. ..... Dome Temp./Hum. +12.5°C ... 74%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
850	4"						5890Å	32a	Hdy pgm		
860	"							~~33d~~		Repeat x2	
890								~~33i~~			
870								~~33x~~			
								31c;		10 K max	
								30i;			
								~~30i~~			
28K	.8"	2.99 V	AOV					34i;	Tellurk Std	max = 12.4K ADU AIRMASS = 1.430	
21.5K								35c.	"	9K MAX typical	
								30i;			
								36i;		MAX ADU = 13K ADU	
				All to Perkins S worm				Tn			

313
Pg#1 Sat-Sun

Date 1.992 June 27/28 Observers Hdg - T.n

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC08452	SKY diffuse	[dome open mirrors covered]		~16 EST		0 0	~35°		
FM00453	BS 5763	1992.5 15 30 40	+40 51 30	20 43			67 Int sec	"N" mak	
8453	Comp							tetr clear	60s
8454	BIAS (4)							~~THRU A=1/2~~	
8455	FLAT							THRU A=1/2	10s
8456	HD197433	20 38 36	+75 14	230406		03185E			420s
8457	"	"	"	231253					420
8458	"			232016					420
8459	"			232756					420
8460	"			233514					"
8461	"			234232					"
8462	"			234950					"
8463	"			235722					420
8464	BIAS (4) / CC08465	FLAT A=1/2 10s /			CC08466	Comp (clear)		60 secs	

Spectr. Temp. ..... Dome Temp./Hum. 44.9 76.4% Transparency Conditions 51 hazy 314

Focus ....6.68..... @ 23 EST 2 Large Towers looked of in 13

Spectr. Temp. ..... Dome Temp./Hum. ..... CLIMBDN 90CGAin CCDT = -101.7°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G5525 1800 l/mm	200u FULL	5840A			(NO FANS on Tonight)	
									Tel Normalization	star mal-light NW breeze	
47x47 pixels		V 5.01	KV5	four foumos					Seeing Test	SW Dome-facing	
								11ci			
								1ci		Looks good ± 1 pixel	
								12ci			
960	3"5"	V 7.3 7.7	G5V +KOV					13ci	Hdg pgm	2000 400 scan 40G above Hgal AIRMASS = 1.275	
817								14ci			
310								14ci			
810								15ci		Repeat x 4	
850											
800	3"6"										
800								15ci			
700								15ci		exp/mirror	

315 pg #2

Date 1992 June 27/28 Observers Hdg./Tag

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCO8467	HD197433	20 38 36	+75 14	00 10 17					420s
8468	"			00 17 34					"
8469	"			00 24 52					"
8470	"			00 32 10					"
8471	"			00 39 28					"
8472	"			00 46 46					"
8473	"			00 54 04					"
8474	BIAS(4)			01 01	CCO8475 Comp 60sec			CCO8476 FLAT 10sec	
8477	HD197433			01 06 06					420s
8478	"			01 13 24					"
8479	"			01 20 42					"
8480	"			01 28 13					"
8481	"			01 35 31					"
8482	"			01 42 49					"
8483	"			01 50 08					"

Spectr. Temp. ..... Dome Temp./Hum. +13.8°C / 78.8% Transparency Conditions .. sl. hazy 316

Focus .....6.68.....

Spectr. Temp. ..... Dome Temp./Hum. ..... CLIMBDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
~700	5-6"	[illegible]		CASS CCD	1800l/mm	300μ FULL	5890Å	~~18ci~~	Hdy pgm	Repeat x 7	
700	3-5"	[illegible] NO									
700	2-4"										
650											
732	4-5"										
800											
750								18ci			
										Pixel T = +13.3°C	
720								19ci		Repeat x 3	
730											
900	3+							19ci		—	
900								~~25ci~~		Repeat x 4	
975											
950											
990								20ci			

317 pg#3

Emulsion Batches:

Date 1992 JUNE 27/28 Observers Hdy./Tm.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC08484	BIAS(4) ✓	CC08485	FLAT ✓ 10sec MAX 11 KADA		CC08495 Comp		22i	Fe Ar clear	60sec
8486	HD197433	20 38 36	+75 14	02 03 37		00 19E			420s
8487	"			02 10 55					"
8488	"			02 16 13					"
8489	"			02 25 31					"
8490	"			02 33 09					
8491	"			02 40 27					
8492	BIAS(4)		Comp 60secs						
8493	Comp							Fe Ar Clear Tung A=1/2	60s
8494	FLAT								12sec
8496	HD197433			02 57 34					454
8497	"			03 05 52		00 44W			420s
8498	"			03 13 10					"
8499	"			03 20 28		00 58.5W			"
8500	BIAS(4)								

Spectr. Temp. ..... Dome Temp./Hum. +13.2°C ..... 79% Transparency Conditions ..... Sl hazy / thin cloud 348

Focus .... 6:68 .....

Spectr. Temp. ..... Dome Temp./Hum. +12.8°C ..... 80% LAMBDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm	200μ Full	5890Å	~~[illegible]~~	Note Comp written latter CCD8495		
1010	3"	V 7.3 ~ 7.7	65K + KOE					~~23c.~~	Hdy pgm	Repeat x 4	
1000											
880											
950								23c.			
920	3"-5"							~~24c.~~		Repeat x 2	
950								24c.			
								1c.		Dome T = +13.1°C	
								25c.			
								26c.		12K HOK max	
1000								27c.		Air mass = 1.180	
850								~~28c.~~		Repeat x 3	
810	3"-8"										
890								28c.			
								1c.			

pg #4 SAT/SUN

Emulsion Batches:

Date 1992 JUNE 27/28 Observers Hdy./T.n.

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC08501	FLAT							TUNG A=1/2	12sec
8502	Comp							FeAr CLEAR	60sec
8503	Comp							"	"
8504	HD177724	19 00 49	+13 43	033629		2 44W			219
8505	"	"	"	034104					225
8506	Comp							FeAr Cloud	60sec
8507 – 8509	FLATS x 3							TUNG A=1/2	12sec
8510	BIAS (4)								

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions .. Hazy 320

Focus ..... 6:68 .....

Spectr. Temp. ..... Dome Temp./Hum. 43°C 80-5%H

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800l/mm	200μ FULL	5896Å	29c;		MAX 12 K ADU	
								~~30c;~~			
								30c;			
25,200								31c;	Telluric Std	8.4 K MAX ADU	
27000								32c;	"	10K MAX ADU 1.448 AIR MASS	
								33c;			
								36c;		MAX ADU = 62.4 K/pixel	
								1c;			
				All to Pearson & Wootten							

324 pg1 sum-mon

Date June 28/29 Observers Tn/Hlw [KK]

Emulsion Batches:

16 mm guide Lens installed for guide camera Tplung

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
FM00455 (ABCD xx)	HD123782	1992.5: 14 08 01	49 29 37	~20 27 00				67 mc	integrated
cc08511	Bias (4)								
cc08512	Focus Test			~20:54					
cc08513	Focus Test								
8514	Comp.							FeNa clear	20 sec
8515	HD123782	1992.5: 14 08 01 → 1900: 14 04.6	49 29 37 → 49:56	21:02:46	21:04:57	1:10 W	+50°		131 sec
8516	Comp							FeNa clear	20 sec
8517	Comp							"	"
8518	Ross 1051	15 02 01	60 46 30	21:22:19	22:00	1:08 W	+61°		2266s
8519	Comp.							FeNa clear	20 sec
8520	Bias (4)								
8521	Comp							FeNa clear	20 sec
8522	AC +76 5308	15h 43.2m	76° 20'	22:14:55		1:41 W	+76°		3360 sec
8523	Comp.							FeNa clear	20 sec
8524	Bias (4)								

Spectr. Temp. ..... Dome Temp./Hum. 18.5°C / 59.9% Transparency Conditions ... Slightly Hazy ... 322

Focus ... 6.68 ..... Light South Wind.

Spectr. Temp. ..... Dome Temp./Hum. ..... CLAMSHELL FANS ON CCDT → -100°C 90CGain

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	~~Emulsion~~	P.H.	Program	Remarks	Quality
55×55 pixels		5.25	M2 III ab	CASS CCD	1800 ℓ/mm	310μ triple slit			Seeing test	FM0045 5x slit illumination strong due to sky. (Not quite dark)	
					G=4983 →		λ=5140 → 5115	1ci	Dome temp 18.0°C	Format 480 0 50 1024 4 1	
					G=5000 →		λ=5140	3ci	Stellar 0.1 pixel red-shift	Format: 480 0 20 1024 10 1	
								4ci		(only for 3ci & 4ci)	
~3000 counts.								5ci			
9000 counts		5.25	M2 III ab					6ci	Std. Velocity = -13.4 ± .3 km/s	6000 ADU Sum Average above background, 4 columns ~310 S/N	
								7ci			
								8ci			
830c	1"-2"	11.0	M2					9ci	KK Prog. → 2	Encoder deltas look good * Accidentally exited to DOS; then reset encoders to this star.	
								10ci		600 sum Avg. above background	
	* 1"-2"							1ci		Dome Temp = 17.2°C	
								11ci		* image mostly in slit	
302c		13.0	M4					12ci	KK prog	250 ADU Sum Avg. Mon Avg.	
								13ci			
										Dome Temp = 16.7°C	

323 pg 2

Date June 28/29 Observers Tn/HlW [KK]

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
F 8525	Comp							FeNe Clear	20sec
8526	AC +62° 26749	17 34 30	61 45 00	23:21:57	00:	0:42 W	+61° 41		2606 sec
8527	Comp							FeNe Clear	20sec
8528	Bias (4)								
8529	Comp								
8530 - 8532	Flat x 3							Tung. A = 1/2	10 sec
8533	LHS 494	20 31 43	61 23 48	00:19:10	01:19:10	1:01 E	61°		3600
8534	Comp						Note: A = 1/2	FeNe ~~Clear~~	20 sec
8535	Bias (4)								
8536	Comp			01:39:12				"	"
8537	AC +65 6955	20 29 00	65 06 00	~~01:39:12~~ ↑	02:	0:01 W	65°		2291
8538	Comp							Fe Ne Clear	20 sec
8539	Comp							"	"
8540	AC +75 8347	21 57 36	75 08	02:27:34	02:57:39	0:47 E	75°		1805 sec
8541	Comp							FeNe Clear	20sec

Spectr. Temp. ..... Dome Temp./Hum. 16.6°C / 64.87 Humid Transparency Conditions Clear, Slight Haze 324

Focus 6.68

Spectr. Temp. ..... Dome Temp./Hum. ..... LLAMBDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm	310u	5140A	14ci			
2220	1-2"	9.95 ✓	MIVe					15ci	KK pgm	~1800 Sum Avg. Abv. Bkgd.	
								16ci			
								1ci			
								17ci			
								18ci		Max ~7200 Intensity	
208c	1-2"	12.5 ✓	m?					19ci	KK Pgm.	Easy guiding at 167 ms integration with new guider setup	
								20ci		Why did we get less count than from AC 76 5308, Seeing seems just as good.	
								1ci			
								21ci			
~900c		10.4 ✓	M3					22ci	KK Pgm	750 Sum Avg. of 5 columns. ~122 SNR	
								23ci			
		10.5 V	MO					24ci			
668c								25ci	KK Program	500 ADU Sum Avg above Bkgd (5 col) ~100 SNR	
								26ci			

325 pg 3

Date June 28/29 Observers Tn/HIW [KK]

Emulsion Batches:
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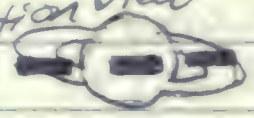
Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
18542	Bias (4)								
8543	Comp.							FeNe Clear	20 sec.
8544	LHS 3693	21 31 24	51 04 49	03:06:29	03:46:29	0:24 W	51°		2400 sec
8545	Comp							"	20 sec
8546	Bias (4)								
8547-8549	Flat×3							Tung a=½	10 sec
8550	~~Saturn~~ Bias(4)								
8551	Comp							FeNe A=½	20 sec
8552	Saturn			03:57:26					92 sec.
FM00456(SNT)	Saturn		2 views Image aquisition R-31750 1 view Saturn on 3/0a slit.						

Spectr. Temp. ..... Dome Temp./Hum. 15.2°C/74.8% Transparency Conditions .... Hazy .....

Focus ... 6.68 .....

Spectr. Temp. ..... Dome Temp./Hum. 14.6°C ... 77.3%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				Cass	1800 l/mm	310μ	λ centre = 5140Å	1ci			
								27ci			
400c	2"	11.8 V	M3.5					28ci	KK Program	This is it 450 sum ADU above bkgd??	
								29ci		CCD Dewar hasn't been topped up for 11.5 hrs and has warmed to -83°C.	
								1ci			
								30ci			
					All to Persseus			& Worm			
								31ci			
39,000c								32ci	2 of Impeg sequence 3 frames	 Image taken and saved as FM0456 (STA)	
					All to Persseus			& WORM			

garson Exp

327 pg#1 [HK] pgm

Date June 30/July 1 Observers HIW/TN

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
~~FM00457~~ cd 8553/4	HD123782	14 04 36	49 5600	20:42:00					10sec
FM00457 (ABCD)	"	"	"				"N" mode	67 ms integration	
8556	Bias (4)			20:49					
~~8555~~	~~Comp~~			20:53				FeNe Clear	20 sec
~~8557~~	~~HD123782~~	~~14 04 36~~	~~49 56 00~~	~~20:58:35~~	~~21:02:30~~	1:14 W	+50°		212 sec
8555	Comp			21:06				FeNe Clear	20 sec
8557	HD123782	14 04 36	49 56 00	21:10:27	21:13:19	1 25	50 N		175 sec
8558	Comp			21:15				"	20 sec
8559	Bias (4)								
8560	Comp							FeNe Clear	20sec
~~8~~561	LHS 5072	3:06:59	79:35:47	21 3351	22:33:51	10:27 E	80°N		3600 sec
8562	Comp							FeNe Clear	20 sec
8563	Comp							"	"
8564	LHS 1176	00 55 11	60 49 52	22:58:40	23:58:40	6:42 E	61°N		3600 sec
8565	Comp							"	20 sec

Spectr. Temp. ..... Dome Temp./Hum. 17.3°C/56.8% Transparency Conditions ... Clear ... 328

Focus ... 6.68 ...

Spectr. Temp. ..... Dome Temp./Hum. ..... FANS ON Topup @ 20:35 (still cold) 90CGHn (COT → -100C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
		5.25	M2IIIab	CASS CCD	1500 l/mm G=5000	310μ tr. p'le slit	5140Å		Focus test	Stellar ~0.1 pixel to the red	
39×39 pixels		"	"						Seeing Test	Right below middle slit. Dome is NW, No wind	
								1ci		Dome Temp 17.0°C	
								5ci		These were trashed	
~11800 counts	~2"	5.25	M2IIIab					6ci	Std. Vel	because Hartman mask was in stellar pos' for 1st comp.	
								7ci			
~11000 c	~2"	5.25 ✓	M2IIIab					8ci	stdvel		
								9ci			
								1ci			
								10ci			
379 c	2"	11.2 ✓	M2					11ci	KKpgm	1.775 AIRMASS Small cloud drifted by halfway through.	
								12ci		Δ RA +00 00 07 Δ dec 00 00 27 @10 30E	
								13ci		~300 ADU. Sum Avg. NW Bg	
672 c	2"	10.8	M2					14ci	KKpgm	Eastone of pair (sep 1") 2.037 Air Mass Δ RA 00 00 2 Δ dec -00 00 15 E 7 E	
								15ci			

pg #2
329

Date June 30/July 1 Observers Hlw/Tn [KK Pgm]

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
8566	Bias (4)								
8567,8,9	Flat × 3			00:00		6:37 E	61° N		
8570	Comp						α = ½	FeNe ~~Clear~~	20 sec
8571	LHS 215	05 49 05	82 06 21	00:12:41	01:13:00	10:30 E	82° N	>1hr	3752
8572	Comp						α = ½	FeNe ~~Clear~~	20 sec
8573	Comp							FeNe Clear	
8574	BD +57 2735	23 19 54	57 20 00	01:25:51	01:57:	3:05 E	58° N		1916
8575	Comp							FeNe Clear	20s
8576	BIAS								
8577	Comp							FeNe Clear	20s
8578	Ross 226 (?)	22 50 30	60 28 00	02 0604					1182
8579	Comp								
Not written	✓ Comp								
	HD18884	02 57 06	03 42 00						
8580-82	Flat × 3							TUPG A-V3	1½
8583	BIAS (4)								

Spectr. Temp. ..... Dome Temp./Hum. 15.0°C / 57.6% Transparency Conditions .... Clear, with high 330 cirrus

Focus .... 6.68 .....

Spectr. Temp. ..... Dome Temp./Hum. 13.4°C / 62.5%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
								1 cl			
								17, 18 19 Ci			
980	>2"	10.5	M2					21 Ci		Air Mass = 1.7	
13K								22 Ci			
								23 Ci			
1154		10.5	MZe					24 Ci			
								25		Dome Temp	
								26			
0								27		50 ADU summed above bkgnd. (Clouding in)	
								28 Ci		Spectrum definitely quite look like an M2	
								29 Ci			
										Did Not do due to sudden cloud cover	
								31 Ci		MAX - 5800 ADU/pixel	
		All workers to Persons									

331

Pg #1 Mon / Tues

Emulsion Batches: .....

Date 1992 Julg. 6/7... Observers ... Hdg. I.Tn ....

Reset CSS Clock To ... WWV Time .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC08589 8585	Focus Test							Fe Ar clear	20/20
8586	BIAS(4)			20 19					
FM00458(ABCD) & FTS HD144579		16 01 30	+39 25 36	~2030		00 42E	+39 10 27	"N" male	
8587	Comp							Fe Ar clear	60s
8588	BIAS(4)								
8589	HD177724	19 00 49	+13 49	20 48 32		3 29 E			175
8590	"	"	"	20 53 13					207
8591	Comp							Fe Ar clear	60s
To 8592 8594	FLATS x3	at HD177724 posn.		21 06				Twilg A=1/4	30s
8595	FLAT at	HD155937 posn.						~~Twilg~~ A=1/4	25s
8596	BIAS(4)								
8597	Comp							Fe Ar clear	60s
8598	HD155937	17 09 30	+16 29	21 19 07		01 01E			60s
8599	"			21 31 48		repeat x 3			600s
8600	"			21 42 07					600
8601	"			21 52 26					600

Spectr. Temp. ..... Dome Temp./Hum. 17.7°C 68.8% Transparency Conditions .. FINE .....

Focus 6.68 → 6.62 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CHAMBDA

90CGAin CCD → -100C

FANS on as they should Be

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
T=17.6°C	Set	6.62		CASS CCD	G=6020 1200l/mm	200u Full	6563Å	3ci 4ci	Focus Test	Right on 360 0 12 1024 40 1 CCD For Focus Test	
										Dome T = 17.6°C	
31×31 pixels 67 msec Int		6.66	G8V	4 frames	Lower Right slit via	200u Also	Tel/NORMalization		STAR Seeing Test	Dome SSW wind NNW 4 kmph	
								5ci			
										Dome T = +17.1°C	
30K								6	Telluric Std	1.0704 AIRMASS guided somewhat (5200 ADU MAX)	
35K								7	"	7700 ADU MAX	
								8			
								9 10 11		12.4K ADU MAX	
								12		" " But Time only 25 secs	
								1ci		Dome T = 16.7°C	
								13ci			
644	* 1.2"	8.29 - 8.77	F8					14ci	Hdypgm	800 ADU SUM AVG of 4 cds after Bright * This comp exp by 4 secs clearly separated	
560	2"									A.R MASS = 1.168 @ 2:31	
sum of 2 1370								15ci		1200 ADU SUM AVG ABove BKgnd For 5 cds	

333
Pg#2

Mon / Tues

Date 1992 JULY 6/7 Observers Hdy. / Tn

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC08602	HD155937	17 0930	+16 29	22 0352		00 16E	exp-Radiant		60s
8603	BIAS(4)								
8604	Comp							FEAT Clear	60sec
8605	FLAT							TUNG A-1/4	25sec
8606	HD155937			221922			Repeat x4		60s
8607	"			222941					60s
8608	"			224000					"
8609	"			225018					"
8610	"			230046		00 42W	exp-Radiant		
8611	BIAS(4)								
8612	FLAT							TUNG A-1/4	25s
8613	Comp							FEAT Clear	60sec
8614	HD155937	17 0930	+16 29	231624			Repeat x2		
8615	"			232643					
8616	"			233718			Repeat x4		
8617	"			234737					

Spectr. Temp. ..... Dome Temp./Hum. +15.8°C 79%H Transparency Conditions .. FINE – SL. hazy.....

Focus .... 6:62 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CHAMBON

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
360	2"	8:29 – 8:47	F8	CASS CCD	G=6020 1800/nl/mm	200u FULL	6563Å	16i	Hdy pgm		
								~~17~~i			
								17i			
								18i		12.4K ADU max	
520								19i			
530	2"										
540											
480	1"-2"							19i			
540								20i			
										Dome T = +15.0°C	
								21i			
								22i			
520								~~23~~i	Had to	@ 23:18 reinstat CCD power for guide camera, due to H meter interference problems	
550								~~23~~i			
560	1"-2"										
570											

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pg #3

Date 1992 July 6/7 Observers Hdy / Tn

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCD8618	HD155937	17 09 30	+16 29	23 57 55					600sec
8619	"			00 08 14	00 18 14				600s
8620	BIAS(4)								
8621	Comp							FeAr Clear	60sec
8622	FLAT			00 21 58				Tung A=1/4	25sec
8623	HD 155937			00 23 54			Repeat x6		600sec
8624	"			00 34 13					"
8625	"			00 44 32					"
8626	"			00 54 51		02 35W			"
8627	"			01 05 09					"
8628	"			01 15 28					"
8629	BIAS(4)								
8630	FLAT							Tung A=1/4	25sec
8631	Comp							FeAr Clear	60sec
8632	HD155937			01 30 42			Exp/Reset		

Spectr. Temp. ..... Dome Temp./Hum. 13.8°C / 79.9% Transparency Conditions Slightly 336

Focus 6.62 .....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
650									Hdg pgm		
612	2-3"	8.29 -8.77	F8					23c			
8930								24c			
								25c		10698 ADU max	
650								~~26c~~			
650	2"-3"										
600	3"										
680										1.345 Air mass	
660	2"-3"										
640								26c			
										Dome T = +13.2°C	
								27c		D14x = 10 K ADU/pixel	
								28c			
560								29c			

337 pg#4

Mon - Tues

Date 1992 July 6/7 ..... Observers ..Holy + Tom.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCO8633	HD155937	17 09 30	+16 29	01 52 07		03 33 W	Repeat x3		600s
8634				02 02 26			~~Repeat x3~~		600s
8635				02 12 45					1
8636				02 23 17			exp Repeat		4
8637	BIAS(4)								
8638	Comp							FeAr Clear	60sec
8639	FLAT						*	TUNG A=1/4	30sec
8640	HD155937			02 39 46		04 20 W	Repeat x3		600s
8641				02 50 48					600s
8642				03 01 07		* 04 42 W			600s
8643	BIAS(4) Dome T= +33°C/CCO8644			FLAT ~~Comp~~	TUNG/Ap=V4 ~~FeAr/Clear~~	30secs,			
8644	Comp for HD177724.							FeAr Clear	60sec
8647	HD177724	19 00 49	+13 43	03 20 40					27es
8648	"			03 26 14					953
8649	Comp							FeAr Clear	60s

Spectr. Temp. ..... Dome Temp./Hum. +13.2°C 82.3% Transparency Conditions ...Sl. hazy ...thin cloud 338

Focus ....6.62.....

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
560	2"				G 6020 1800 l/mm	200μ Full Height	G 5038	~~30i~~	Hdy pgm	(exp 01 EST 41 - 51 EST Lost)	
500											
550											
470	3"							30i			
										Dome T = +13.4°C	
								31i			
* Aperture Homed 1st before → To A=1/4								32i		11K max HA	
330											
300	2.4"									2.131 Air mass thin cloud here	
300								33i		* very close to Tel Limit For Tel west of piers	
CC0864 5		Comp/clear FeAr						34i			
								~~34i~~			
38K		V 949	40 nm					~~35i~~	Telluric Std	max 7400 HA 1.520 Air mass	
40K								~~35i~~	"	10K max	
								17i		~~DS~~	

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pg 05

Date 1992 July 6/7 Observers J. Hlg / J. Tg

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC08650	FLAT			0335				TuNG H=1/4	30s
8651	FLAT							"	"
8657	FLAT					0318W		"	"
8653	BIAS(4)								
8654	Comp							Fe Ar Clear	60sec
8655	NOVA Cyg 92	20 27 43	+52 17 39	03 45 17		0205 W			30 3s
8656	Comp							Fe Ar Clear	60sec
8657 8659	FLATS x 3	at Nova Cyg posn.						TuNG A=1/4	25sec
8660	BIAS(4)								

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ..... sl hazy 340

Focus ..... 6.62 .....

Spectr. Temp. ..... Dome Temp./Hum +13.2°C 80-5% 14

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
								18i		11K MAX	
								—			
								15i			
								16			
								17i			
520	2.3			CASS CCD	G=6020 1800l/mm	300u FULL	6563Å	19i		6100 ADU max 1.077 Airmass	
								22i			
								25i		8700 ADU max	
			All To Work In G:\92-07 & Persons.								

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pg. #1 Tue/Wed

Date 1992 July 7/8 Observers Hdy/Tn

Emulsion Batches:

Plate No.	Object		R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp
CC08661.FTS 8662	FOCUS TEST		Comp/Stellar Hartmann positions						FeAr Clear	20/20
FM00459(AKC).FTS	HD144579		16 01 30	+39 25 36	20 36			67mse Int	'N' male	
8663	BIAS(4)				20 40 27					
8664	COMP	NORMAL							FeAr Clear	60sec
8665	FLAT	NORMAL							Tung A=1/4	25sec
8666	HD 144579	NORMAL	16 01 30	+39 25 36	20 46 04	20 49 14				190sec
8667	COMP	NORMAL							FeAr Clear	60sec
8668	BIAS(4)				21 01 50					
8669	COMP	REVERSED							FeAr Clear	60sec
8670	HD 144579	REVERSED	16 01 30	+39 25 36	21 05 38					184sec
8671	COMP	REVERSED							FeAr Clear	60sec
8672	FLAT	REVERSED							Tung A=1/4	25sec
8673	FLAT	REVERSED							Tung A=1/2	120sec
8674	COMP	REVERSED							FeAr Clear	60sec
8675	HD177724		19 00 49	+13 43	21 23 48		02 50 E			217
8676	"		"	"	21 28 27			186 sec	Erf	186

Spectr. Temp. ..... Dome Temp./Hum. 19.4°C / 64% Transparency Conditions .. P.C.R.T. Cloudy 342

Focus ... 6.62 ..... Clear

Spectr. Temp. ..... Dome Temp./Hum. ..... NO FANS CCDT ⇒ -100°C

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	1800 l/mm G=6020	200μ FULL LEN	6563Å	~~3c1~~ ~~4c1~~	Focus test	⊙ Stellar pixel red 360 0 12 1024 4 0 1 CCOFMT	
31x31 pixels		V 6.6	G8V	4 frames	[Also Tel Normalization star Logged again when Reversed]					DOME SW, NO WIND FELT	
										480 0 50 1024 4 1 CCOFMT	
7632								~~5c1~~			
								~~6c1~~		12003 ADU MAX	
2310	2"							~~7c1~~	std vel		
7600								~~8c1~~			
								~~9c1~~ ~~10c1~~			
2370								10c1			
[redacted]6800								11c1			
[redacted]								12c1		11667 ADU MAX	
								13c1		15328 ADU MAX	
6060								14c1			
~3K		V 249 n	AO n/a					15c1	guided Telluric Std, excessively	16000 ADU MAX 1.976 Hi Linear	
37K		n	n					16c1	"	7K MAX	

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Emulsion Batches:

Date 1992 JULY 7/8 Observers Hdq./Tn

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCO 8677	Comp							FeAr Clear	60sec
8678 8679	FLATS x2			21 35 52				Tung A=1/2	10sec
8680	BIAS(4)			21 41 39					
8681	FLAT							Tung A=1/2	10sec
8682	COMP							FeAr Clear	60sec
8683	HD 155937	REPEAT 3 17h09m30s	+16° 29'	21 48 23					600sec
8684	"			21 58 41					"
8685	"			22 09 00	22 19 00				"
8686	"	REPEAT 3		22 20 18					"
8687	"			22 30 37					"
8688	"			22 40 55	22				"
8689	BIAS4								
8690	COMP							FeAr Clear	60sec
8691	FLAT			[illegible]				Tung A=1/2	10sec
8692 8693	DARKS x2			2305		00 38W	+1623		600sec
8694	BIAS(4)			23 28 11					

Spectr. Temp. ..... Dome Temp./Hum. 18.7°C ... 65% H Transparency Conditions ... P.C.T. Cloudy ... 344

Focus ... 6:62 ... → mostly SO

Spectr. Temp. ..... Dome Temp./Hum. +17.9°C ... 68.5% H

CHAMBDA

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
				CASS CCD	G=6020 1800l/mm	200μ Full L	6563Å	17C;			
								18C;		13239	
								19C;		14862	
								20C;			
925	2"	✓ 8.29 8.77	F8					21C;	Hdg pgm	WELL SEPARATED COMPANION	
947											
790								21C;		cirrus cloud at times.	
549										CLOUD	
223	2-3"									a	
125								22C;		Thick cloud	
								23C;			
								24C;		12528	
								25C;	26C;		

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Date 1992 July 7/8 Observers Hdy/Tn

Emulsion Batches:
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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
8695 8696	Focus Test	Comp/stellar HurTimes		positions		~00	+1623	FeAr clear	20/20
8697	BIAS (4)			00 50 43					
8698	COMP							FeAr Clear	60sec
8699	FLAT							Tung A=1/2	8sec
8700	HD 155937			00 56 02					600sec
8701	"			01 06 20					"
8702	"			01 16 50					"
8703	"			01 27 08					"
8704	"			01 37 41					"
8705	"			01 48 00	01 58 00*				"
8706	BIAS (4)								
8707	FLAT							Tung A=1/2	8sec
8708	COMP			02 00 37				Fear Clear	60sec

Spectr. Temp. ..... Dome Temp./Hum. ..... Transparency Conditions ... Part Cloudy ..... all cloudy

Focus ... 6:62 .....

Spectr. Temp. ..... Dome Temp./Hum. +17.0°C ... 70%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
	+17.5°C			CASS CCD	G=6020	200μ	6563Å	(3ci 4ci)	Focus Test	Tel Reversed. 2.1 pixel Rest for Stellar	
								1ci			
								5ci			
								6ci		13596 ADU MAX	
490	2-3"							~~7ci~~	Hdy pgm		
619											
347										CLOUDS	
382											
513											
225 + 20 sky								7ci		01 53 30 STAR LAST SEEN	
								8ci		12991	
								9ci			

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Date 1992 July 9/10 Observers Hdg./Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.	Exp. Mtr.
CCD 8709 8710 ABCD EFG	Focus Test	Comp/Stellar Hour Tmtn		20 03		0 0	+37° Tel west side		20/20	
FM00461	HD 144 579	16 01 30	+39 25 36	20 35		(67 msec Int x 4 frames)	(133 msec x 3 frames)	"N" mode		
8711	BIAS(4)			20 47 17						
8712	COMP			20 48 41				FeAr Clear	60 sec	3464
8713-5	FLATS x 3							Tung A=1/2	10 sec each	
8716	HD 177724	19 00 49	+13 43	20 53 42					179	3000
8717	"	"	"	20 57 48					240	4000
8718	COMP							FeAr Clear	60 sec	3441
8719	BIAS(4)									
8720	FLAT							Tung A=1/2	10 sec	
8721	COMP							FeAr Clear	60 sec	
8722	HD 155937	17 09 30	+16 29	21 13 42		Repeat x 6			600 sec	670
8723	"			21 24 00					"	510
6724	"			21 34 19					"	570
6725	"			21 44 37					"	510

Spectr. Temp. ..... Dome Temp./Hum. 20.8°C 69.5% Transparency Conditions .P.A.R.T. Cloudy .....

Focus ... Gr 62 ..... 90 CCD Gain CCDT -> -100°C

Spectr. Temp. ..... Dome Temp./Hum. ..... Tel Norm on BS5733 & Rotlogger w.th Tel (East Side)

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
Fe Ar Clear	6.62	Set/	T=20.8°C	CASS CCD	G=6020 1800 l/mm	200µ Full	6563Å	3ci 4ci	*T=20.8°C	*@ 360 0 12 1024 40 1 CCD Fast Stellar Still 2 d pixel Rad	
Xtx.		6.66	G8V			200µ Lower Right	NO FANS		Seeing Test	DOME EAST Tel East SIDE	
6464								5ci			
								6ci		11367, 11321, 11212	
30000		2.99	AO Tonn					7ci	Telluric Std	6000 ADU TRAILED	
41000								8ci		11000 ADU TRAILED	
6461								9ci			
								10ci		14784	
								11ci			
670	2"-3"	8.29 -8.77	F8					12ci	Hdg pgm		
590											
570											
510											

349 pg#2

Date 14 92 JULY 9/10 .... Observers ... Hdq. I.T. → 24"/19" Photometry of same star

Emulsion Batches: .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CC08726	HD155937	17 09 30	+16 29	21 54 56					600s
8727	"			22 05 14		00 03E			600
8728	BIAS(4)								
8729	Comp							Fetr Clear	60sec
8730	FLAT							Tung A=1/2	8sec
8731	HD155937			22 21 16		00 13W	exp/Adjust		600s
8732	"			22 31 54			"		600s
8733	"			22 42 43			Repeat x3		600s
8734	"			22 53 00					"
8735	"			23 03 19					"
8736	BIAS	PHOTOMETRY ENDS							
8737	FLAT							Tung A=1/2	8sec
8738	Comp							Fetr Clear	60sec
8739	ADS 10408 C			23 22 44	23 42 48				1200sec
8740	HD155937			23 45 50					600sec
8741	"			23 56 09					"

Spectr. Temp. ..... Dome Temp./Hum. +19.6°C ... 73.4% Transparency Conditions ... Fine ... v.s.l. hazy 350

Focus ..... 6:62 .....

Spectr. Temp. ..... Dome Temp./Hum. ..... CLAM BD4

not All Exp Tonight with Tel on East Side of Piers

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
560	1"-2"	8:29 ~~8:27~~	F8	CASS CCD	G6020 1800 l/mm	300μ Full	6563Å				
580								12c;		1.128 AIR MASS	
								1c;			
6900								13c;			
								14c;		11 K MAX eclipse ~~(probably)~~ for 5 cols	
550								~~15c;~~		1000 ADU Sum Avg above bkgnd	
550								15c;			
580										GTmsa Int on Slit	
590									FM00462 XY sweep of Pair @ 02 51 EST		
650								16c;			
								~~17c;~~		Dome T = +8.7°C	
								17c;		11995 MAX ADU	
								18c;			
~140	1.5"							19c;		some contamination by C FANS TURNED ON AT BEGIN	
610								20c;			
609								11		FANS TURNED OFF BEFORE END	

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pg #3

Date 1992...July...9/10 Observers Hdy/Tn.....

Emulsion Batches:

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Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
cc 08742	HD 155937			00 06 27					600sec
8743	"			00 16 45					"
8744	BIAS(4)								
8745	Comp							FeAr Clear	60sec
8746	FLAT							Tung A=1/2	8sec
8747	HD 155937			00 31 44					600sec
8748	"			00 42 03					600sec
8749	"			00 52 32					"
8750	"			01 02 51					"
8751	"			01 14 06					687
8752	BIAS(4)								
8753	FLAT							Tung A=1/2	8sec
8754	COMP							FeAr Clear	60sec
8755	DARK			01 31 32					600sec
8756	Comp							FeAr Clear	60sec
8757	BIAS(4)								

Spectr. Temp. ..... Dome Temp./Hum. +18.0°C/73.2% Transparency Conditions haze, some cloud 352

Focus 6.62 FANS OFF

Spectr. Temp. ..... Dome Temp./Hum. .....

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
474	2-3"				1800 l/mm	200μ	6563A	20c;			
337								20c;			
								21			
								22		12820 ADU MAX	
224								23c;			
314	3"										
267											
167								23c;			
270								24c;			
								25c;		12761	
								26c;			
								27c;			
								95c;			

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Date 1992 July 9/10 Observers Hdy / Tn

Emulsion Batches:

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Comparison Exp.
CCO 8758	HD 177724	19 00 49	+13 43	01 51 51					
8759	COMP							FeA/Clear	60sec
8760-1	FLATS x2							Tung/A=1/2	8sec
8762								FeA/Clear	60sec
8763	FLAT/Comp	FOR HD155937						Tung/A=1/2	8sec
8764	BIAS(4)								
8765	HD 155937	17 09 30	+16 29	02 17 04		04 10W			600s
8766	"	"	"	02 27 20					60s
8767	"			02 37 37					60s
8768	COMP FOR HD155937							FeA/Clear	60s
8769	FLAT "							Tung/A=1/2	9sec
EFGH FM100463	ADS 14636 HD 201091/92	21 069 2000	+38 45	≈03		≈00 30W		"N" mode	
CCO 8770	Saturn			03 47 10		01 27W			166s
8771	FLAT								
8772	COMP								
8773	BIAS(4)								

Spectr. Temp. ..... Dome Temp./Hum. +16.5°C 75% Transparency Conditions Part Cloudy 354

Focus ..... 6.62 .....

Spectr. Temp. ..... Dome Temp./Hum. +15.6°C 78%

Exp. Mtr.	Seeing	Ptg. Mag.	Sp.	Inst.	Grating/ Tilt	Slit	Emulsion	P.H.	Program	Remarks	Quality
31033		V 2.99		CASS CCD		200u	6563Å	29ci	Telluric Std	X = 1.26 8000 ADU	
								30ci ?			
								~~31ci~~		12454 MAX	
								~~31ci~~			
								~~32ci~~			
								1ci		Dome T = +16.4°C	
270	2"3"	V 8.29 - 8.77	F8					~~33ci~~	Hdy pyn		
307								~~33ci~~			
190								33ci			
								34ci			
								35ci			
67 msecs		Image Aquisition & Slit views				200u view.			Brt star CAT sep = 28.7" goal 30" sep pair	13555	
25000						200u Full Length	6563Å	36ci	equatorial	4K ADU MAX Ring to Ring 10533	
								37ci			

Emulsion Batches:
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Date ..... Observers .....

Plate No.	Object	R.A. 1900	Declination 1900	Starting Time E.S.T.	Ending Time E.S.T.	Hour Angle End	Declination	Comparison Type/Filter	Ex